X

PROGRESS REPORT

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OF

FOREST ADMINISTRATION

IN

ANDAMANS

FOR

1891-92.

1893.

No. 1521 F, dated Calcutta, the 16th December 1892.

From—J. W P. MUIR-MACKENZIE, Esq., C S., *Offg Secy. to the Govt of India,*

To—*The Superintendent of Port Blair.*

I AM directed to acknowledge the receipt of your letter No. 595, dated the 19th July last, forwarding, for the information of the Government of India, the Forest Administration Report of the Andamans for 1891-92, together with your review of the operations of the year. The report was punctually submitted.

2. The most noteworthy occurrence was the cyclone which visited the Islands on the night of the 1st November 1891. The storm not only occasioned great damage to the forests, but seriously interfered with the extraction and export of timber. The Deputy Conservator in his report estimates that nearly 50 per cent. of the trees in the area over which the disturbance passed have been overturned or otherwise injured. Owing to the difficulty of moving about the forests after the storm, the submission of a detailed report on the damage done was perhaps at the time impracticable. The quantity of growing timber, however, which has been thrown down or of trees which have been irretrievably injured seems considerable enough to influence materially the operations of the Forest Department for years to come. His Excellency in Council, therefore, desires that the Progress Report for the current year should contain full information on this subject, more particularly respecting the overthrow of padouk trees in localities from which this species can profitably be extracted under existing conditions.

3. The total area of forests on the books of the Department has been reported as 1,957 square miles, or 32 square miles less than the gross area of the main islands This area of 32 square miles represents the extent of village and other sites to which small additions are made yearly by clearing the forests. A commencement was made during the year in the permanent selection and demarcation of the more valuable forests, but the area delimitated has not been stated.

4. In pursuance of the suggestions contained in paragraph 3 of the Government of India's review of the report for 1890-91, a valuation of the stock of padouk by linear survey over an area of about one square mile was carried out. The wreckage caused by the cyclone prevented for the present the undertaking of survey operations on a larger scale. The results of the countings of padouk trees cannot be taken as an accurate gauge of the average condition of the forests, to ascertain which more extended inquiries will be required. The marked disproportion in the age-classes of padouk which has been found to exist in the area surveyed was anticipated, and it is believed that this disproportion will be found to be of general occurrence throughout the forests. As the annual outturn depends upon the number of mature trees, full and careful investigation regarding the ages of the trees must be made and extraction carefully regulated with the object of securing a sustained yield.

5. The report under the head of "Protection and Improvement" calls for little comment. It is observed that fires have been communicated to the forests from adjoining cultivation, and the remarks of the Deputy Conservator show that very serious damage may be caused unless greater care is enforced on the cultivators in the burning of their lands. Experiments were undertaken

with a view to ascertain how far the natural reproduction of padouk could be artificially assisted, and the plantations of this species were extended by 188 acres.

6. The portable tramway for the extraction of timber was extended by one mile at a cost of R8,266. A full report on the saving in the cost of timber extracted, derived from the use of this line, has been furnished by the Deputy Conservator. The estimated net profit for the year was R6,149, or 27·5 per cent. on the capital outlay incurred, after making a deduction of 10 per cent. for depreciation of material. The profits would have been considerably greater had it been possible to utilize the tramway to its fullest capacity.

7. The number of trees girdled was 4,513, including 1,841 padouk. Of trees girdled in previous years, 5,016 were felled, of which 1,859, producing 3,536 logs, were padouk. The outturn from the forests, as compared with the returns for 1890-91, is exhibited in the following statement:—

Agency by which removed.	MATERIAL REMOVED.											
	TIMBER.			FUEL.			BAMBOOS.			MINOR-PRODUCE.		
	1891-92.	1890-91.	Increase or decrease	1891-92.	1890-91.	Increase or decrease.	1891-92.	1890-91.	Increase or decrease.	1891-92.	1890 91.	Increase or decrease.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	No.	No.	No.	R	R	R
Government . .	294,024	336,559	—42,535	...	...	...	580	...	+580	42	...	+ 42
Purchasers . . .	36,700	17,920	+18,780	4,462	15,350	—10,888	106,000	174,000	—68,000	1,232†	1,389‡	—157
District Officers .	47,650	175,248	—127,598	816,174	990,426	—174,252	244,900	264,969	—20,069	1,184	459	+725
Free grants . .	37,500	...	+37,500	330,000	120,000	+210,000	500,000	500,000	...	658	283	+375
TOTAL .	415,874	529,727	—113,853	1,150,636	1,125,776	+24,860	851,480*	938,969	—87,489	3,116	2,131	+985

* Value R434, as against R469 in 1890-91.
† Includes R776 realized from levy of tax on canes exported.
‡ " R1,016 " " " "

There were large decreases in the outturn of timber extracted for export beyond sea and for the requirements of the District Officers. The falling off in the quantity of timber removed by the Department is accounted for by the cyclone. Two cargoes of padouk timber, aggregating 1,895 tons, were despatched to England, and shipments of this timber were also made for the Burma State Railway and the Bombay Gun-Carriage Factory.

8. The financial results of the year's working were as follows:—

Year.	Receipts.	Charges.	Surplus.	Proportion of Surplus to gross Revenue.
	R	R	R	Per cent.
1891-92	2,72,338	1,79,908	92,430	34
1890-91	1,58,326	1,30,052	28,274	18
Increase in 1891-92	1,14,012	49,856	64,156	16
Average for the five years ending 1890-91 . .	1,12,506	74,154	38,352	34

These results were materially affected by the cyclone, which increased the cost of extraction of timber by R2·4 per ton. The increase of expenditure was, however, more than counterbalanced by enhanced revenue, principally on account of padouk sale in London, and the financial working of the year may be considered satisfactory.

9. In conclusion, I am desired to express the satisfaction of the Government of India with the efficient conduct of the work of the Department by the Deputy Conservator, and to thank you for the complete review of the year's operations contained in your forwarding letter.

No. 1522 F.

COPY, with copy of the Report, forwarded to the Home Department for information.

Government of India Central Printing Office.—No. 403 R. and A.—23-12-92—175.—Radhanath.

No. 595, dated Port Blair, the 19th July 1892.

From—COLONEL N. M. T. HORSFORD, *Superintendent of Port Blair,*

To—*The Secretary to the Government of India, Revenue and Agricultural Department.*

I HAVE the honour to submit, in original, for the information of the Government of India, the Annual Report of the Deputy Conservator of Forests, Port Blair, for the year 1891-92.

2. Mr. E. G. Chester, Deputy Conservator of Forests, has continued in charge throughout the year, and I gladly endorse all that Colonel Cadell has said in former reports in favour of this valuable officer. From the 4th November Mr. Chester has been assisted by Mr. E. M. Buchanan, Extra Assistant Conservator, of whom he reports, in deservedly complimentary terms, as a hard-working officer who has fully maintained the good reputation he brought with him from Upper Burma.

3. During the year several pieces of forest were selected for permanent treatment as forests, and were demarcated. These consist of two small pieces of plantation at Navy Bay, a block covering the hills between Pahargaon and the sea, and a large piece south of the latitude of Rangachang and Munglutan. They were gazetted "Reserved Forests" in April 1892. No Forest Act has been extended to the Andamans, and the Government of India deeming the introduction of such an Act unnecessary, the term "Reserved Forests" does not bear the legal meaning that it does in India. The policy adopted is that recommended by the Inspector General of Forests in paragraph 11 of his "Suggestions."

4. The Report throughout its pages bears evidence of the frightful damage done by the great cyclone of the night of 1st—2nd November 1891, blowing down, or breaking off, nearly 50 per cent. of the trees, and making huge gaps in the forest, rendering locomotion difficult. The dragging paths were obliterated, and the convict barracks blown down, and re-clearing the former and re-erecting the buildings interrupted the work of the Department. The effect of the cyclone on the outturn of the forest and on the cost of extraction of the timber is set forth in paragraphs 24 and 43 of the Report.

5. Valuation surveys were made over strips of forest covering an area of 614 acres, the results giving 0·84 mature padouk trees per acre.

6. Clearings round 303 padouk seed-bearers were made to assist seedlings to establish themselves, but the result cannot yet be reported. This work cost R396.

7. There being no more area available for planting at Goplakabung, a piece of land at Chauldari (Dhani Khari) was selected and 15½ miles of 20-feet broad lines cut and planted with padouk, covering an area of 188 acres. This cost R1,127, while the upkeep of the old plantations raised the total expenditure on plantations for the year to R1,425. The young plantations escaped injury from the cyclone, the older portions alone suffering, but not very seriously.

8. The portable tramway was extended by one mile, making a total length of 2½ miles of line. The material for the extra mile cost, landed, R7,568, and making a raised road and laying the line cost the Department R698. The Settlement, however, assisted by making a piece of the road free of cost to the Department. Paragraphs 18 and 44 to 46 contain particulars of the working of the line, and shew the savings due to its use, which during the year under

report are estimated to have been R6,149. This is a satisfactory profit, when it is remembered that the total capital outlay on the material has been only R22,293. The savings in cost of extraction depend on the number of elephants available for feeding the line, and on the length of line in use. This is fully set forth in the report. To extract the timber from the area girdled during the year and the previous year, an extension of the tramway by two miles will be necessary, otherwise it will be impossible to extract it, and as two miles of tramway cost no more than four elephants, the Deputy Conservator has been directed to submit proposals for sanction. I strongly recommend a liberal expenditure on the portable tramway. If the cost of repairing roads used by the Forest Department was added to its expenditure, the advantage of these tram lines would become even more apparent.

9. The trees girdled were 4,543, including 1,841 padouk. The trees felled were 5,016, including 1,859 padouk.

These 5,016 trees gave 12,017 logs, including 3,536 logs padouk.

The number of logs cut compares as follows with those of previous years; —see paragraph 6 of Colonel Cadell's Summary for 1890-91 :—

1887-88	4,198
1888-89	7,481
1889-90	11,978
1890-91	13,591
1891-92	12,017

10. There was a large decrease in the quantity extracted from the forest due to the cyclone. This quantity was 5,880 tons as compared with 6,730 tons of 1890-91, while the cost of extraction was increased from R7·8* to R10·6. Of this increase R2·4 is attributed to the cyclone.

* NOTE.—This figure was erroneously printed R7-8-0 in the Summary for 1890-91. It should be R 7·8, or R7$\frac{4}{10}$.

11. Two cargoes were sent to London consisting of—

Padouk squares, 2,039	84,470	c. ft., or	1,689	tons.
„ planks	9,252	„ „	185	„
Other „	639	„ „	13	„
Thitmin logs	419	„ „	8	„
TOTAL	94,780	„ „	1,895	

12. The sales from local sale depôts (excluding saw mills) and from "Forest Department" were—

2,784 logs	78,529	c. ft., or	1,571	tons.
Sawn timber	1,623	„ „	32	„
	80,152	„ „	1,603	„
As compared with	74,162	c. ft. in 1890-91, and		
	1,19,272	„ „ 1889-90		

Of this quantity of 80,152 cubic feet, only 45,249 (comprising 43,743 cubic feet logs and 1,506 cubic feet planks) were sold to the Settlement, which has been recently reducing its demand year after year for timber in the log. It is satisfactory to note a trial being made by the Burma State Railway of padouk for carriage building, and also the sales to the Gun-Carriage Factory and Indian Marine. It is to be regretted that local merchants, of whom there are several with means, do not export timber in the log from Port Blair, but limit their dealings to planking of the cheap woods.

13. At the Chatham Saw Mill 51,088 cubic feet (1,022 tons) scantling, including a few squares, were cut out of 88,145 cubic feet in the log, shewing an average wastage of 42 per cent.

The sales were 42,152 cubic feet (843 tons) realizing R29,860, of which 15,977 cubic feet realizing R15,789 were sold to Settlement Officers and the Local Commissariat Department.

Paragraph 50 of the Report shews the financial position of the mill when it is charged with all labour employed at the rate of R6 per convict per month.

14. Paragraphs 31—33 and 51—52 give the transactions in the portable saw mill, which is a small one working only one circular saw. It is employed principally on cutting shingles, as its planks are not appreciated by the public. An attempt to start a small trade in tea boxes of "didu" did not succeed.

15. In the Calcutta depôt the sales were small compared with the previous year, being 81 tons and realizing R4,549, as compared with 408 tons and R21,162 of that year, and 262 tons and R15,304 of 1889-90.

The prices realized, except for padouk squares, were not satisfactory. There was a large balance of over 180 tons in this depôt at the close of the year; that is large when compared with the year's transactions.

16. In Madras, where 203 tons were sold, the padouk squares and round logs realized only R41 a ton, but squares of pyimma, which is a II class timber, realized R47. These pyimma squares were however selected ones.

17. The London sales were larger than in any previous year, 1890-91 having been the first year that two cargoes were sent to this market. These sales were—

Padouk squares	57,295 c. ft.,	or 1,146	tons.
„ planks	13,995 „	„ 280	„
Koko „	211 „	„ 4	„
Dunnage boards	4,999 „	„ 100	„
TOTAL	76,500 „	„ 1,530	„

The whole realized £11,933-12-8, or £7-16-0 per ton, as an all-round rate. Paragraph 55 explains the reason why no detailed comparison can be made with prices received the previous year. The average rate per ton for the aggregate of timber and dunnage was, however, better than in the previous year.

18. Paragraph 56 of the report compares the sales of the year with those of the previous year, shewing larger sale from local depôts and from London, and smaller sales from Calcutta.

19. The material removed by license-holders and the revenue received is very small compared with that of timber removed by Government agency. The proceeds are given in paragraph 56.

20. The financial results of the year were compared with previous years:—

	Revenue.	Expenditure.	Surplus.
	R	R	R
1891-92	2,72,338	1,79,908	92,430
1890-91	1,58,325	1,30,052	28,273
1889-90	1,62,195	94,975	67,220

to which should be added the net increase in the value of stock as per paragraph 58, raising the grand total to R1,10,493.

21. Mr. Hill, in the 26th paragraph of his valuable suggestions for the administration and working of the Andaman forests, urges the more extended employment of convict labour. Mr. Chester, in paragraph 15, refers to the delay

and difficulty in procuring convict labour. I sympathise with Mr. Chester, but this delay and difficulty is under present circumstances unavoidable. As I write, we are put to the greatest straits to meet a requisition made for men to unload the ballast and reload with a cargo of timber a ship expected to arrive here a few days hence. The men must be given, but works have to be postponed, and rules relaxed to comply with this demand. Every year the Forest Department will require more labour, and, so far as I can see at present, it will become more and more difficult to supply these men. As compared with 1889-90, double the number of men were supplied to the Forest Department in 1891-92, the actual figures for the two years being 278—551. It must be remembered that the forest work is hard, and the men are much exposed in all weathers. Only men in good health can be sent, and of these many fall sick and have to be replaced. If the requirements of the Forest Department go on increasing, and it is found nearly impossible to supply convict labour, the question may have to be considered whether it will not be worth while to recommend the importation of term convicts, and their employment exclusively in the Forest Department. The work required of them will be such as to remove the impression that transportation to the Andamans is preferable to imprisonment in the Indian jails. In the meantime all the officers in the Settlement are alive to the necessity of helping the Forest Department to get as many men as can be possibly given.

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REPORT

OF

FOREST ADMINISTRATION

IN THE

ANDAMANS

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CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

The area cleared of forest during the year by the Settlement Officers for villages, grazing, fuel, etc., was 344 acres in the Northern District and 4 in the Southern District; these areas include an area of 57 acres in the Northern District of swamp land cleared for fuel and planting.

The area of "Unclassed Forest" thus reduced is shewn in form No. 49.

2. A commencement was made in selecting and demarcating forests for permanent treatment as such, and the two small pieces of plantation at Navy Bay, one piece of forest covering the Pahargaon Hills, and a large area occupying the entire southern portion of the island, were demarcated during the year under report. The work was not completed till April, so the notification declaring these forests to be "Reserved Forests" did not issue till after the close of the year. These forests are declared "Reserved Forests" in accordance with the policy explained in the Inspector General's "Suggestions" of 1891, and are, after selection and demarcation, merely approved and gazetted by the Local Government. No Forest Act is in force or considered necessary by Government.

3. The cyclone which visited the island on the night of 1st—2nd November 1891 did great damage to the forests, and, as already reported, swept across the island of South Andaman from an easterly direction in a belt about 36 miles in breadth, extending about 25 miles north and 11 south of Port Blair. On the ridges about 25 per cent. of the trees were blown down, while nearly an equal number were broken off in the stem, and the whole area, with the exception of a few small sheltered localities, was strewn with débris. In the valleys the damage done was scarcely less. Some of the principal objects of selecting Reserves being to secure a permanent source of timber and fuel for the Settlement and villages, it is of course necessary, notwithstanding the damaged state of the forest, to select areas inside this belt of destruction for reservation, and all good padouk-producing areas must also be maintained as forest.

2.—Boundaries.

4. The length of boundary laid down was about 13 miles, of which 8 miles necessitated very heavy work. The cost amounted to R713; but of this a sum of R315 only was disbursed during the year under report.

CHAPTER II.

SURVEYS, WORKING-PLANS AND ANNUAL PLANS OF OPERATION.

5. Some progress was made during the year under report in the execution of linear valuation surveys. Before the cyclone it would have been possible without much difficulty to run linear surveys through the forests and to make the network of these valuation lines sufficiently complete. The cyclone, which occurred before the close of the rains, littered the forest with an almost impenetrable mass of fallen trees and debris, and rendered it impossible to penetrate the jungle until the formerly existing lines of communication could be re-opened, or fresh lines cut, and even now it is not possible to leave the cleared paths and make one's way even a few yards without coolies to cut through the obstructing tree tops and fallen branches. This wreckage not only obstructs the passage, but blocks the view, so as to render plane-tabling, or other survey, however simple, impossible, when once off a path.

Labour is not procurable to open up an extensive system of paths, so advantage was taken of the demarcation work which necessitated the cutting of a line across the island from shore to shore, and of the re-clearing of the elephant-dragging paths, and in this way a linear survey, three chains broad, along 8 miles of boundary lines running through the forest, and about 17½ miles of dragging path was finished by the close of the working season. The countings extended over an aggregate length of 2,046 chains, giving, with a breadth of 3 chains, an area of 614 acres.

6. The results of these countings are recorded in full in this office. The following results as to padouk will be interesting. Omitting one of the dragging paths from which padouk had already been cut and removed, the surveys of the year give as the number of padouk to a square mile:—

Trees 30″ in diameter and upward	502	or per acre 0·84
„ 24″ „ „ „ „	35	
„ 18″ „ „ „ „	12	
„ 12″ „ „ „ „	18	

but the countings over so small an area as 614 acres can of course not be accepted as necessarily representative. As had been anticipated, these figures shew a complete absence of anything like proper proportion between the numbers of the trees of the different classes, and this peculiarity is not confined to this species only, but in all species the trees of the larger classes outnumber, as a general rule, those in the smaller. The lines of survey have been plotted on the 4-inch map of the forests.

7. As an example of the difficulty in locomotion in the forest after the cyclone, the Divisional Officer, when cutting the boundary line across the islands, was in the habit of laying out a trace with three or four men ahead of the main gang of coolies, and during this work, was continually climbing over debris and hardly had his feet on the ground half the time, his hands being continually required for purposes of climbing. It would have been difficult to fix up any survey instrument, even a prismatic compass, before clearing the line, and had this been done, sights could not have been obtained. In re-clearing about 1½ miles of a well-known and well-worn path near Rangachang, the coolies frequently lost it and had to make a circuit round masses of debris to re-find the path a few chains further on and to work backwards. Under these circumstances, progress in making valuation surveys will unfortunately be somewhat slow for a year or two to come.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—Establishment.

8. Mr. E. G. Chester, Deputy Conservator of Forests, was in charge throughout the year. Since the close of the year he has been promoted from the 3rd to the 2nd grade of Deputy Conservator, with effect from 26th February 1891.

The Bengal Forest Department continues to furnish the officer for this appointment in accordance with the Government of India, Revenue and Agricultural Department, Forests, Circular No. 8 F. of 13th April 1892.

Mr. E. M. Buchanan, Sub-Assistant Conservator of Forests, was attached to the Andamans Forest Division during the year, and reported his arrival on the forenoon of 4th November 1891. Under the re-organisation scheme he was made an Extra Assistant Conservator, 2nd grade, with effect from 1st December 1891, and was promoted to the 1st grade with effect from 4th December 1891. This appointment is filled up from the list of officers in the Burma Forest Department. Mr. Buchanan is a hardworking officer, and has fully maintained the good reputation he brought with him from Upper Burma.

9. The subordinate staff remained as described in last year's report. The senior of these officers has been on leave, on medical certificate, continuously from 1st February 1891, and it is feared is not likely to be able to rejoin his appointment. It is difficult to get even fairly good men for posts of forester, as the Department cannot offer sufficient inducement to good men from India, and the local candidates are few and, with few exceptions, of inferior quality. In some of the posts ticket-of-leave convicts are employed.

The same temporary establishment of one forester was maintained as in the previous year.

2.—General Protection and Breaches of Forest Rules.

10. The few breaches of forest rules that occur are generally by convicts, and the cases are treated by the Settlement Officers as convict offences, and could not be separately recorded without considerable difficulty. It is satisfactory to note that a few cases of careless firing of jungle for cultivation, which resulted in damage to the forest, or standing trees, were duly punished by the Settlement Officers as being contrary to standing orders.

3.—Forest Fires.

11. Although the forest is not liable to fires, as in many parts of India, it is observed that on the borders of cultivation fires have begun to invade the forests to a short distance, preventing the regeneration of the original forest and favouring the production of a secondary growth consisting of shrubs and small soft-wooded trees, which take fire easily and are regularly burnt in after years, the fire generally penetrating a little further into the original forest year after year. Were this to be allowed to continue, a portion of the forest would probably gradually become as liable to periodic fires as in India, but the Settlement Officers, by punishing cases of carelessness in firing areas for cultivation, are assisting the Department in checking this practice.

4.—Grazing and Fencing.

12. No remarks are at present necessary to supplement those made in last year's report.

5.—*Natural Reproduction.*

13. To assist the natural seedlings of padouk, which are frequently found to germinate fairly plentifully in favourable spots but to die off shortly afterwards, apparently for want of sufficient light, the ground was cleared of all shrubs, etc., round a number of seed-bearers of padouk to a radius of 50 feet in all directions, all saplings of inferior species on these areas being felled, and small trees girdled with the object of killing them. The result of this operation will be seen in future years. The trees thus cleared are those which will be girdled during the following year, and an attempt is being made in this manner to ensure an advance growth of this species before removing the parent trees. It was found difficult to obtain labour for this work, and the girdling operations had to be stopped for the purpose. It is rather expensive work, rendered more so by the wreckage of the cyclone. It is thought just possible that the cyclone itself by making huge gaps in the canopy, may, perhaps, assist some seedlings of padouk, till then suppressed, to hold their own with other species.

14. The immediate vicinity of 303 padouk seed-bearers was in this way cleared in February to April at a cost of R396 for convict labour, this labour being paid for at R6 per man per month. After the early part of April the labour had to be taken off and employed on clearing lines for plantations. This expenditure does not appear in the accounts for the year under report, having been adjusted in April 1892, when it was charged to A—VIII *d*—Cultural Operations.

15. The Government of India, in paragraph 5 of their review on the report for the previous year (1890-91), express regret that action was not taken during that year on the orders passed by them on the report for 1889-90 with regard to clearing round padouk seed-bearers. These orders were received on 23rd December 1890, and the Inspector General of Forests being expected to visit the forests to settle this and other questions, action was postponed till after his visit in January—February 1891. There is always some delay and difficulty in procuring extra labour in Port Blair, where the only labour available is convict, and such work as road-making, cutting boundaries, clearing for plantations, girdling, and the cultural operations in question have to be carried out, more or less, in rotation. Loading the ships alone is sometimes difficult to arrange for without interfering unduly with other important work.

6.—*Artificial Reproduction.*

16. During the year under report the plantations were extended by an area of 188 acres at Chauldari near Dhani Khari, there being no room for further extensions at Goplakabung. This extension consists of parallel lines cut through the forest, 20 feet broad, with intervening breadths of 80 feet of jungle, the aggregate length of these lines amounting to 15½ miles, and covering an area of 188 acres. It is not known whether this plantation should be classed as "Regular plantation" or "Cultural operations?" The Deputy Conservator is inclined to think the former, but in accordance with the procedure adopted in the previous year, has classed this extension as "Cultural operations" in return No. 52.

In consequence of the failure of the teak-seed to germinate, due, it must be admitted, to selecting a site at too low a level for a nursery, which was consequently inundated, padouk only was planted in all the lines, instead of padouk and teak in alternate lines.

The expenditure on this work was R1,127, while a sum of R298 was expended on the upkeep of the old plantations at Goplakabung.

This plantation is doing very well and was hardly damaged at all by the cyclone; the fallen trees were removed from the lines, and the debris cleared away, and no more was found necessary.

17. The plantation at Goplakabung was considerably damaged by the cyclone in the older portions, the younger escaping almost entirely. In the former the wind, which seems to have been severest when coming from the north-east, blew down many of the young poles of teak, uprooting them, and less frequently bending and breaking them near the roots. In many cases the tops of the teak have been broken. This damage to the teak has been the heaviest where the teak is pure, and less severe where it is mixed with padouk. Generally speaking, the storm did not uproot the padouk, but confined itself to breaking off the tops of the poles, leaving them ragged and devoid of many of their principal branches. Where the padouk is pure the damage done is less, evidently because the canopy was more complete. The effect has been an exceedingly heavy thinning, and, in addition, the branches of the trees now standing have been broken which has opened out the canopy too freely and injured the leading shoots. After such operations as are possible under the circumstances, such as re-erecting some stems and cutting back others, the plantation, which consists of mere poles, will, it is expected, not be permanently injured to any great extent. The younger plants of the plantation, which have not yet reached the stage of small poles, escaped uninjured.

For the plantation of 1892-93 lines covering 320 acres are being prepared.

7.—Communications.

18. The Dhani Khari tramway line was extended during the year by a mile, making a total of 2½ miles, a sum of R7,568 being paid for the material landed at Port Blair, and R698 for the making of the roadway to receive it. In this last work the Settlement Officers assisted, as the road was also necessary to open up communication with one of the villages. The line now reaches the end of the clearing in the Dhani Khari valley. The report on the financial aspect of the tramway called for by the Government of India in the review on last year's report is given in Chapter V of this report. Without this tramway it would now be impossible to go on extracting timber from these forests without using three elephants for every one now employed.

19. On the completion of the temporary tramway of wood in the Anikhet valley, sanctioned by Government, to enable the Department to extract timber felled there in clearing for cultivation, a sum of R1,354 was spent. This temporary tramway is serving the purpose for which it was made, but is not a success. One of the great difficulties in its use is that the logs are necessarily dragged to the nearest point of the line, which is raised above the level of the fields through which it passes, and there is always difficulty in lifting them on to the trucks, after which occasionally derailment of the trucks occurs and delays work. In the case of the Dhani Khari line the depôts, made at short distances along the line, have raised platforms from which logs can be slid on to the trucks, and on this line of course traction is easy and no derailments occur.

Repairs to the Dhani Khari road cost R744, and to other roads R312, while an unusually high freshet of 31st May 1891, which inundated the valley, unfortunately carried away the two principal bridges of the Dhani Khari line,

and, interrupting the extraction, necessitated their reconstruction and repairs to breeches in the bund at a cost of R779.

The total expenditure on roads and bridges was R11,455.

8.—*Buildings.*

20. Want of accommodation for the convicts employed by the Forest Department near their work necessitated erecting a barrack at Dhani Khari-work usually done by the Settlement; this cost R644, and other small items cost R34. The cyclone, however, overthrew most of the barracks, and re-erecting them and a small rest-house used by the Forest Officers raised the total expenditure on buildings to R1,484, the rest-house costing R101.

CHAPTER IV.

YIELD AND WORKING.

General.

21. The outturn of the forests is given in detail in forms Nos. 54—55, while the receipts, issues, and balances in sale depôts are given in detail in form No. 56.

The following extracts from these forms show the out-turn to have been as follows compared with the previous year :—

	1891-92. c. ft.	1890-91. c. ft.
Timber—		
Removed by the Forest Department	294,024	336,559
" purchasers	33,450	10,420
" District Officers	...	...
	327,474	346,979
Poles, Bullies, etc.—		
Removed by purchasers	3,250	7,500
" District Officers	47,650	175,248
" on free grants	37,500	...
	88,400	182,748
Fuel—		
Removed by purchasers	4,462	15,350
" District Officers	816,174	990,426
" free grantees	330,000	120,000
	1,150,636	1,125,776

The figures for the two years differ considerably. In the case of the free grants this is due to this being the first occasion on which an attempt has been made to estimate the poles and bullies removed, and to a revision in the estimate for fuel, the details of which are given in form No. 54.

	1891-92.	1890-91.
Bamboos—		
Removed by Government Agency	580	...
" purchasers	106,000	174,000
" District Officers	244,900	264,969
" free grantees	500,000	500,000
	851,480	938,969

Minor produce—	1891-92.	1890-91.
	R	R
Removed by the Department value	42	...
" purchasers	1,232*	1,389*
" District Officers	1,184	459
" free grantees	658	28
	3,116	2,131

The above remark as to a revision in the estimate also applies to the figures of minor produce removed by free grantees.

SPECIAL.

1.—Departmental Operations.

22. During the year under report, in addition to those trees mentioned in paragraph 16 of the report for 1890-91, 4,543 trees were girdled from August 1891 to February 1892; the area was in extension of that previously worked, and stretches eastwards to beyond Ali Musjid, occupying a good part of the area since marked off as a "Reserved Forest."

These 4,543 trees include 1,841 padouk. The details of the other trees are given in form No. 53 A. The number of padouk is not sufficient, but labour was difficult to spare for this work.

To work out these trees, it will be necessary to extract part by extending the present tramway line southwards of Manglutan by about 2 miles, which will make a total length of ½ miles, and the balance by afterwards transferring part of the line to a trace running south from Bumliton; and for sanction to this work application will be submitted separately.

23. The number of trees felled was 5,016, including 1,859 padouk—see form No. 53 B.

These 5,016 trees gave 12,017 logs, including 3,536 logs padouk, the outturn of the 1,859 trees.

24. There was a large decrease in the timber removed from the forest by the Department, which during the year under report was 294,024 cubic feet, or 5,880 tons, as compared with 336,559 cubic feet, or 6,730 tons, of the previous year. This falling-off is entirely due to the cyclone, which interrupted all current work for some time, and then on its resumption necessitated the re-opening of dragging paths and replacing of boats destroyed. Besides this, the demand which suddenly arose for special kinds of timber to repair damages interfered with the total outturn. As will be seen below, this did not prevent the quantity sold being 665 tons more than in the previous year.

25. In the previous year the stock in depôts was increased by as much as 988 tons. In the year under report the balance was increased by only 195 tons. The quantity of logs used in the saw-mills was considerably less (910 tons less) than in the previous year, the resultant quantity of sawn timber being only 472 tons less. Further, at the commencement of the year, the timber in some of the stock-depôts, where the logs had formerly merely been counted and their contents estimated for the previous year's report, were actually measured, and their true contents brought on the books; the previous estimate having been too low, the excess appears in the returns now submitted in favour of the year. These circumstances have enabled the Department, notwithstanding lower receipts and greater sales and losses of timber from

* Includes duty on canes exported

depôts, to close the year with slightly larger balances in depôt than at the commencement of the year. The details are given in full in form No. 56.

26. The timber received direct from the forests was as follows :—

		No.	c. ft.
Into local* sale-depôts	logs . .	9,257	263,513
Dhani Khari Saw-mill	" . .	945	25,590
London	" . .	18	780
Received from forests and sold locally	" . .	92	3,336
		10,312	293,219
Purchased planks		...	805
			294,024

These figures compare with a total of 336,529 cubic feet logs and squares and 30 cubic feet planks, the outturn in the previous year; the cause of this falling off has been explained above.

Timber received in the other depôts was transferred from the above "local sale-depôts" (which term excludes saw-mills).

27. The sales from the local sale-depôts were :—

Logs	2,692	=	75,193	c. ft., or	1,504 tons.
Scantling			1,623	" "	32 "

while the quantity sold from forest-depôts was only :—

Logs	92	=	3,336	c. ft., or	67 tons, making a
Total of logs . . .	2,784	=	78,529	" "	1,571 "
" sawn timber . . .			1,623	" "	32 "
			80,152		1,603

as compared with the following sales of the previous year :—

Logs	2,535	=	61,413	c. ft., or	1,229 tons.
Sawn timber . . .			12,719	" "	254 "
			74,132		1,483

28. The following table shews the classes of timber and to whom the sales were made :—

	I.	II.	III.	IV.	V.	TOTAL.	REMARKS.
Northern District Officer . logs	...	8,802	9,342	758	...	18,902	45,249
Southern " " . "	783	11,063	7,375	3,015	542	22,778	
" " " . planks	400	1,093	...	...	13	1,506	
Port Officer . . . logs	840	62	628	328	205	2,063	
Indian Marine . . . "	...	1,008	1,637	...	...	2,645	
Burma State Railway . "	21,124	84	6,445	...	...	27,653	
Gun Carriage Factory, Bombay . . . . . "	4,488	...	...	...	...	4,488	
Public . . . . planks	...	...	...	117	...	117	
TOTAL .	27,635	22,112	25,427	4,218	760	80,152	

This table, when compared with that of paragraph 23 of the previous year's report, shews a further falling-off in the demands of the Local Govern-

* Haddo, Hobdaypur, Shore Point, Dundas Point.

ment officers, which were only 45,249 cubic feet as compared with 60,821 of the previous year and 83,388 of 1889-90. As usual a quantity of timber was sold to the Indian Marine. The Burma State Railway purchased a considerable quantity of padouk squares and thitmin logs for carriage building as an experiment, and the Bombay Gun Carriage Factory also took padouk.

29. The immediate result of the cyclone was the destruction of the fences round several of the depôts and washing away of a large number of logs and squares. For some weeks after the cyclone the water was unusually rough in the harbour, and other losses took place on a smaller scale before the fences could be replaced.

The quantity lost in the cyclone itself was reported at the time to the Superintendent as 510 logs, including 93 padouk. Many of these were recovered, but subsequent losses made the net total of the year's losses as below :—

	Padouk.	Other.
Lost and written off as useless squares and logs . . .	133	513
Found and recovered	129	47
Net loss . .	4	466

so there was practically no loss in padouk, and some of the 466 logs of other kinds were not lost but written off as having deteriorated in depôt.

30. The transactions in the saw-mills and in the Indian and London depôts must be reported separately and in detail.

Chatham Saw Mill.—The receipts of timber in the log and square were 3,999 logs = 87,482 cubic feet, which figures include 16,848 cubic feet padouk in logs and squares. The quantity sawn was 88,145 cubic feet, yielding 51,088 cubic feet (1,022 tons) of scantling, including a few sawn squares, which figures shew a wastage of 42 per cent.

In the previous year the outturn was 1,408 tons instead of 1,022 but, allowing for the dubbed squares re-squared by the mill, *i.e.*, 338 tons in 1890-91 and 31 in 1891-92, which is comparatively little work, the outturn of the year under report compares favourably with that of the previous year.

The principal disposals were :—

	c. ft.		Tons.
Sales	42,152	=	843
Sent to London as dunnage boards to pack the cargoes of squares	8,612	=	172
	50,764		1,015

These sales were :—

c. ft.	
15,909	to the local Settlement Officers.
68	„ „ Commissariat Department.
25,924	„ „ public.
251	„ Calcutta Municipality.
42,152	

31. *Portable Saw Mill.*—This mill continued to work at Dhani Khari its one circular saw. Planks from this mill are not esteemed by the local

merchants, who complain of the bad sawing. The mill is used as far as possible on cutting shingles.

32. An attempt was made to start a trade in tea-box planking, and planks were cut to the proper sizes,* sorted and packed in bundles, sufficient for 1,245 boxes being sent as a trial consignment to Messrs. Gillanders, Arbuthnot & Co., of Calcutta. The wood used was "didu" (*Bombax insigne*), which was, previously to being sawn, partly seasoned in the log, and the planks, half inch thick, were afterwards stocked in a shed for some months before cutting into the proper lengths. Japan chests were getting 14 annas each in Calcutta, and Messrs. Gillanders, Arbuthnot & Co., on receipt of sample chests from this Department, gave as an opinion that the wood was suitable and would obtain an equal price. The consignment, however, was not approved, the wood being reported to have commenced to split and to have become unfit for tea chests. It is possible that with larger sheds for storage and longer seasoning a trade might be opened out, but it is doubtful whether, the demand for other sawn timber more easily procurable being always in excess of the capabilities of the saw mills, it does not pay better to cut it.

* The planks cut for one box were :—

6 planks	24" × 6" × ½".
6 „	24" × 7" × ½".
4 „	18" × 10" × ½".

33. The timber in the log cut up was 25,424 cubic feet, yielding 12,925 cubic feet (258 tons) scantling, shewing 49 per cent. of wastage. The principal disposals were :—

Sold to Southern District Officer	1,305 c. ft.	(principally shingles.)
„ Government tea garden	321 „	(didu planks for chests.)
„ public	3,997 „	(principally gurjan planks.)
Total sales	5,623, or 113 tons.	
Sent to Haddo	1,493 c. ft. shingles.	
Used by the Department	2,069 „ scantling.	
	9,185	

34. *Calcutta Depôt* commenced with an opening balance of 6,966 cubic feet, or 139 tons (see form No. 56), and the receipts were :—

Padouk squares	131	5,115 c. ft., or	102 tons.
„ scantling		50 „ „	1 „
Gurjan „		903 „ „	18 „
Didu „		60 „ „	1 „
		6,128 c. ft., or	122 tons.

The sales were as below. To avoid repetition in Chapter V the proceeds are also given :—

Padouk squares	48 =	1,890 c. ft., or	38 tons	R2,273
„ scantling		1,263 „ „	25 „	R1,464
Gurjan planks		903 „ „	18 „	R 812
TOTAL SALES		4,056 c. ft., or	81 tons	R4,549

At the close of the year there was a considerable balance of 9,038 cubic feet (181 tons) in this depôt.

35. *Madras Depôt.*—This depôt commenced with a balance of 7,432 cubic feet (149 tons), of which 1,401 cubic feet were padouk squares and logs and 4,274 cubic feet were gurjan planks. Pyimma squares, amounting to 4,420

cubic feet (88 tons), were sent to this depôt on an indent from the Madras Gun Carriage Factory. The sales amounted to 10,167 cubic feet (203 tons). There was no balance at the close of the year.

36. *London Depôt.*—At the commencement of the year the stock in this depôt was:—

Padouk squares	1,420	56,577 c. ft., or	1,131 tons.
„ planks		17,638 „ „	353 „
Other planks		1,255 „ „	25 „
		*75,470 c. ft., or	1,509 tons.

The receipts were:—

		c. ft.
Direct from forests—padouk squares	18	780
From depôts	2,021	83,690
By re-measurement	3	718
Total padouk squares	2,042	85,188
From depôts—padouk planks		9,252
By re-measurement		315
From depôts—thitmin logs	37	419
„ other planks		639
GRAND TOTAL		95,813 = 1,916 tons.

all except the padouk squares and thitmin logs having been sent as broken stowage.

Deducting from the 1,916 tons the amount shown above as found on remeasuring for sale the opening balance and brought on the books during the year, the remaining 1,895 tons formed the cargoes of the *Safir* and *Undine*, which sailed from Port Blair for London in November 1891 and January 1892 with 921 tons and 974 tons respectively.

37. The cargo of the *Safir* was of good quality, and has been approved by the London agents. It is feared that that of the *Undine* was not of such good quality. She arrived in Port Blair on the 3rd November immediately after the cyclone, a month before the commencement of her lay-days named in her charter party, and fully two months before she was expected. The *Safir*, which had arrived late, was still in this port, so there were two ships loading at once. A quantity of padouk timber had just been washed away and lost, and many squares were temporarily rendered unavailable by the cyclone; there was consequently difficulty in supplying her with her cargo, and some of inferior quality had to be utilized. The *Safir* was at anchor well inside the harbour and escaped all damage in the cyclone; the *Undine* also escaped, being at the time outside its path.

38. The quantity sold was:—

		c. ft.	c. ft.
Padouk squares	1,423 =	57,295	71,501 sent as cargo;
„ planks		13,995	
Koko „		211	

and the following, sent as broken stowage, was also sold:—

	c. ft.	c. ft.
Padouk planks	3,958	4,999
Koko „	505	
Other „	536	
TOTAL	76,500, or 1,530 tons.	

39. The cargo of the *Safir* despatched in November 1891 was sold by the end of May 1892, so there is little doubt that the London market, aided by buyers for New York, can absorb two cargoes a year. The agents, however, in the year under report, had a little difficulty in selling early enough to ensure receipt of the proceeds in India within the financial year.

Good colour is the quality which seems to regulate the price of padouk in London, and the timber varies much in colour. Timber cut in different localities varies often considerably in colour, as do different portions of a log. Every endeavour is being made to improve the colour of the timber sent to this market, the timber of lighter colour being reserved for India and local use.

40. The quantities sold during the year compare as follows with those of previous year:—

	1891-92.	1890-91.	1889-90.
	Tons.	Tons.	Tons.
Local sale and forest depôts	1,603	1,483	2,385
Chatham Saw Mill	843	841	682
Portable Saw Mill	113	167	2
Calcutta	81	408	262
Rangoon	...	...	20
Madras	203	141	5
Bombay	...	2	...
London	1,530	666	513
TOTAL	4,373	3,708	3,869

2.—*Removal of Produce by Purchasers.*

41. This is not at present a very important part of the work in the Andamans, but it is satisfactory to notice the gradually increasing demands for timber sawn by license-holders. The quantities of this timber extracted and of other produce removed by license-holders are given in paragraph 21 above, which also gives, for the sake of comparison, the corresponding figures of the previous year. The basis of the estimates, where actuals figures were impossible, are fully explained in the foot-notes in forms Nos. 54—55.

3.—*Free Grants of Forest Produce.*

42. The estimated quantities removed are given above in paragraph 21, and the grounds for these estimates fully explained in forms Nos. 54—55.

CHAPTER V.

FINANCIAL RESULTS.

43. The cost per ton of cutting, dragging, carting, and floating logs to the local sale depôts for the year is calculated as follows.

The total expenditure chargeable to timber works (Return No. 62) was R1,63,521. From this deduct charges incurred on timber after its delivery at these depôts :—

	R
A. I. *a*.—Payments on timber in and for London . . .	87,548
" " " India . . .	5,683
Loading ships for home market	2,314
Paid to the Chatham Saw Mill for sawing . .	8,367
" " portable " " " . . .	2,538
TOTAL . .	1,06,450
B. (Part)	1,200
. .	1,07,650
Deducting this sum from R1,63,521, there is a balance of .	55,871
Adding the interest on the capital necessary to keep up a staff of 20 elephants	6,480
There is a total of . .	62,351

chargeable to the 5,880 tons extracted, shewing a cost of extraction of R10·6 for the year.

In this, as in recent years, these calculations debit the cost of temporary roads made to the extraction; but to compare the results of the year under report more fairly with those of the previous year, allowance should be made for an extra expenditure on temporary roads and road repairs of R2,211 during the year. This would reduce the amount chargeable to R60,140 and the cost of extraction per ton to R10·2, as compared with R7·8 of the previous year, shewing an increase of 31 per cent., or over R2-6 per ton. The quantity extracted was 5,880 tons, as compared with 6,730 of the previous year, while the total cost of extraction was R62,351, as compared with R52,388.

This great difference is due to the cyclone, which by blocking and obliterating the dragging paths and destroying several of the timber floating boats delayed the works of extraction, while the destruction of the convict barracks, and necessity for erecting temporary huts and then reconstructing the barracks and finding and re-opening the dragging paths, repairing depôt fences, etc., necessitated rather an increase than admitted of a decrease of expenditure.

44. The Government of India in their review of the previous year's report call for further particulars on the subject of the working of the tramway and a profit and loss account to shew the financial results of this working. This is not easy under the circumstances.

As the timber works are necessarily receding year after year further from the creeks and roads utilizable for floating or carting, the cost of extraction per ton of timber would necessarily increase unless improvements in the means of extraction, such as tramways, are introduced. If then, as it was expected, the cost of extraction had been less during the year under report than during the previous year, it would have been fair to credit the tramway with the savings. In consequence of the cyclone this is impossible.

The principal timber extraction work is carried on in three different centres, in one of which there is now a tramway, 2½ miles long, while in the second there is a carting road within reach along which timber carts are dragged by buffaloes, and in the third case the proximity of the sea-shore

enables the elephants to drag to the water's edge. In all cases elephants are used to drag the log from the forest to the tramway, or road or shore, as the case may be.

45. It may be accepted that an average day's work for an average elephant consists in his going to a distance of 1 to 1½ miles from the depôt and returning with a log measuring a ton. The estimate given by Mr. Hill in his Suggestions was about 250 tons per year per elephant over the dragging paths then in use. Under these circumstances, when the logs extracted are carried by tramway over 1½ miles of country, for every elephant employed on supplying logs to the terminal depôt the tramway does the work of one other elephant. If 10 elephants are available for this Range the tramway does the work of 10 elephants, enabling us to do with 10 elephants work that would otherwise require 20 elephants.

When the total length of 2½ miles instead of 1½ miles is used, the tramway with 10 elephants does the work of ($\frac{5}{3} \times 10$), nearly 17 elephants.

It is seldom practicable to spare more than 10 elephants for this Range, otherwise the profits of the tramway would be greater.

During the year an elephant costs to maintain as follows :—

	R
Feed	303
Cost of attendants	179
Medicines	6
	488

In Mr. Carter's report on the Andaman Forests for 1886-87 is a detailed calculation shewing that the capital involved (allowing interest at 5 per cent.) to purchase an elephant costing R2,500 and replace it every ten years is R6,475, giving a yearly cost of R324. This sum of R2,500 is probably too little for the value of an elephant landed at Port Blair; but accepting this estimate, and adding R324 to the above sum of R488, there is a total of . . R812

Add for making gear and cutting dragging paths	72
Gratuities to attendants	12
Share of elephant doctor and his coolie	27
Chains, guddies, etc.	27
The total cost of maintaining an elephant is yearly	950

46. The 2½ miles of tramway, therefore, for every elephant employed in this Range saves R950 × $\frac{5}{3}$, less the cost of loading and railing the logs and upkeep, or if 10 elephants are employed R15,833

Less the following :—

	R	
The cost of loading and railing 10 truck loads daily, as the trucks make two trips daily, 20 coolies and 1 petty officer, or 21 men, at R72 per year	1,512	
Upkeep of the line, say	750	
Depreciation at 10 per cent. on cost of material (R22,293)	2,229	
		4,491
		11,342

As a fact the number of elephants actually at work daily on this line was only 8·4, and not 10, as above estimated, no more being available, and the average distance railed was only about 2 miles, and not 2½, so this reduces the above figure from R15,833 to R10,640* and the net profit to R6,149. In future the distances railed will of course increase up to the total length of the line, and the number of elephants at work will increase. Taking 300 working days during the year (the elephants are given a holiday on Wednesday during the hot weather) and an average number of elephants of 8·4 at work, the quantity extracted, at 1 ton per day each, would be 2,520 tons. The actual quantity extracted and railed was 2,828 tons, while in addition 230 tons were dragged direct to the ghât by these elephants; so the work done, and consequently the profit of the tramway, has been rather under-than over-estimated in the above figures.

* R15,833 × 0·84 × ½ = R10,640.

47. Given that a yearly sum is available for the improvement of the means of export, the above figures shew the advisability of expending part on extending the tramway line, and not spending all on elephants. The four elephants purchased in 1890-91 and the four purchased in April 1892 cost when loaded nearly R4,000 each; so the cost of material for 2 miles of tramway line is no more than the cost of four elephants (see paragraph 18 for cost of a mile of tramway line). It is 2 miles more of line that are required for opening up the girdling area of 1890-91, which material, being portable, will of course be available for future areas.

48. The timber sold from the local sale-depôts (excluding the saw-mills) and from forest-depôts, was :—

Class.	Number.	Cubic feet.	Tons.	Amount of sale.
				R
Padouk logs and squares	607	27,235	545	20,412
„ planks	...	400	8	369
II class logs	623	21,019	420	11,363
II „ planks	...	1,093	22	1,007
III „ logs	1,368	25,427	509	10,366
IV „ „	160	4,101	82	1,275
IV „ planks	...	117	2	18
V „ logs	26	747	15	966
V „ planks	...	13	...	34
TOTAL	2,784	80,152	1,603	45,810

49. *Chatham Saw Mill Depôt.*—The following timber was sold :—

	Cubic feet.	Amount of sale.	Average per ton.
		R	R
Padouk scantling	2,836	4,212	74
„ shingles	1,534	1,811	...
II class scantling	2,936	3,162	54
II „ shingles	2,292	2,705	...
II „ squares	251	251	50
III „ scantling	5,339	3,771	35
III „ „ (rejected)	160	35	...
IV „ scantling	23,643	13,112	28
IV „ „ (rejected)	3,156	788	...
V „ scantling	5	13	...
TOTAL	42,152	29,860	...

Of these quantities, 25,924 cubic feet (R13,820) were sold to local merchants and the public, consisting almost entirely of IVth class planks for export, the IInd class squares were sold to the Calcutta Municipality, and the rest was sold to Local Government Departments.

50. The Forest Department paid the Chatham Saw Mill during the year :—

	R
For sawing	8,366
„ other work	338
	8,704

while the mill made by work done for other departments and the public R80, raising its receipts to R8,784, which is less than that made by it in the previous year. The mill was stopped for some weeks owing to drought in May and June, and this reduced the outturn.

The expenditure of the mill (which is disbursed by the Public Works Department of the Settlement) was :—

	R
Pay of Engineer	3,600
„ establishment	1,413
Gratuity to convicts	188
Stores purchased	2,159
Convict labour	4,612
Firewood and charcoal	196
	12,168

These figures are given because, although the mill is not maintained by the Forest Department, it is placed under the Forest Officer, who saws his own timber, paying for the sawing. The cost of working the mill is debited to the Public Works Department of the Settlement, which was credited with the above sum of R8,704. The saw-mill continues to work at a deficit.

51. *Portable Saw Mill.*—The following timber was sold :—

	Cubic feet.	Amount of sale.	Average per ton.
		R	R
Padouk shingles	173	159	...
II class „	1,129	1,041	...
III „ scantling (rejected)	5	1	...
IV „ „	4,275	2,222	26
IV „ „ (rejected)	31	5	...
V „ „	10	23	...
TOTAL	5,623	3,451	...

The shingles were sold to the Southern District Officer, and 321 cubic feet (R223) didu planks for tea chests were sold to the Government tea-garden. Of the Vth class wood, three cubic feet (R7) were sold to the Southern District workshops, and all the rest was sold to merchants and the public.

52. The Forest Department paid the mill for sawing R2,538, and the expenditure disbursed by the Public Works Department of the Settlement was R4,430, as follows:—

	R
Pay of establishment	768
Passage to Calcutta of relieved engine-driver	10
Stores	591
Gratuity to convicts	86
Labour	2,934
Hides, etc.	41
	4,430

53. *Calcutta Depôt.*—From paragraph 34 above it will be seen that the price realized per ton for Padouk in the square was R60 and in the scantling only R58, which latter price is of course not nearly sufficient. Part of this scantling sold for R80 and R75 per ton, while part realized only R40, giving an average of R58, as above shewn. The timber sold at this low rate of R40 was some that had been in stock in Calcutta since April 1889.

The Gurjan planks realised R45 a ton.

54. *Madras.*—From this depôt the sales were:—

	Cubic feet.	Amount of sale.	Average per ton.
		R	R
3 Padouk squares	115	95	41
36 „ logs	1,303	1,082	41
98 Pyimma squares	3,914	3,705	47
87 III class logs	1,752	922	26
6 „ sleepers	21	10	...
Gurjan planks	3,062	2,166	35
230			
TOTAL	10,167	7,980	...

Padouk squares and logs in the previous year realized R50 a ton and pyimma squares R42; Gurjan planks gave R43. It is evident that the rate of R35 a ton for planks is not remunerative, and that a rate of R41 a ton for padouk squares is not sufficient.

55. *London Depôt.*—The quantity sold is shewn in paragraph 38 above: The agents unfortunately shew the timber as sold in lots containing squares, planks, and dunnage boards, the prices quoted being for the aggregate of the lot, it is therefore impossible to calculate average prices for squares or for planks, etc.

The total sum realized for the 76,500 cubic feet, or 1,530 tons, was £11,933-12-8, or £7-16-0 per ton all round, while for the total of 665 tons 35 cubic feet sold the previous year, £4,417-9-1 were realized, or £6-12-9 per ton. This amount of £11,933-12-8 was the equivalent at $16\frac{1}{16}$ pence per rupee of R1,78,309. These quantities however include dunnage boards, which are sent merely to pack the cargo. It is true that as dunnage boards they are sent at two-thirds the rate for cargo, but they sell very badly. The average prices for the padouk squares would in both cases be higher. This omission in the accounts will be pointed out to the London agents.

The sales in this depôt were 1,530 tons, as compared with 666 of the previous year. The cargoes sent home during one financial year are generally sold during the following, and two cargoes were sent home for the first time in 1890-91 in place of the one annual cargo of previous year.

The receipts in this depôt were R1,78,309, as compared with R57,502 of the previous year.

56. The total sales of the year compare as follows with those of the previous year :—

	1891-92.		1890-91.	
	Tons.	R	Tons.	R
Local sale and forest depôts	1,603	45,810	1,483	30,055
Chathan Saw Mill	843	29,860	841	25,043
Portable ,,	113	3,451	167	3,962
Calcutta	81	4,549	408	21,162
Madras	203	7,980	141	7,097
Bombay	...	...	2	126
London	1,530	1,78,309	666	57,502
TOTAL	4,373	2,69,959	3,708	1,44,947

In addition to the above sum of R2,69,959 the following sums were realized under the other sub-heads of Revenue Head I.

		R
I. *c.*	Bamboos	9
I. *e.*	Canes	2
,,	Tusks	41
	TOTAL	52

raising the total under head I to R2,70,011.

Produce removed by purchasers and revenue from other sources realized the following amounts as compared with the previous year :—

	1891-92. R	1890-91. R
II. *a* Timber	2,057	663
II. *b* Firewood and charcoal	34	36
II. *c* Bamboos	53	87
II. *d* Grazing and fodder	1	1
II. *e* Other minor produce	1,231	1,388
V. *c* Other sources	53	303
TOTAL	3,429	2,478

The total value of sales and of other revenue during the year was thus R2,73,440, the revenue realized being R2,72,338.

57. The financial results of the year were :—

	Revenue. R	Expenditure. R	Surplus. R
1891-92	2,72,338	1,79,908	92,430
1890-91	1,58,325	1,30,052	28,273
1889-90	1,62,195	94,975	67,220

To this surplus of R92,430 should be added the net increase in the value of stock as per form No. 57 A., amounting to R10,063, and an increase of R8,000

shewn in form No. 57 B. for increased value of elephants, making a grand total of profits of R1,10,493.

58. With reference to paragraph 26 of Mr. Hill's "Suggestions" concerning the expenditure on works of improvement, the amounts spent during the year under report, of which the total is entered in form 62, were :—

	R	
A VII. *a* Part	7,568	Purchase of tramway line.
A VI. *c* Part	1 500	,, of a crane.
A VIII. *b*	314	Demarcation.
A VIII. *d*	1,425	Plantations.
A IX. *e*	5,340	Freight and other charges on elephants purchased.
TOTAL .	16,147	

This is considerably less than the amount (R26,897) spent in 1890-91.

CHAPTER VI.

GENERAL REMARKS.

59. In April of the year under report four elephants* were received from the Kheddah Department, Dacca. The price of these elephants had been paid and appeared in the accounts of 1890-91; the freight and cost of travelling were paid during the year under report.

* Morning Glory, Lachma, Jangipore, Almora.

"Napier," the runaway elephant, has not been seen during the year, and it is feared was killed in the cyclone if then alive.

60. Of six timber-towing boats at the commencement of the year, one had to be condemned as too old for work, and two were smashed beyond repair in the cyclone. Since the cyclone one boat was received from Calcutta during the year, and a second one since its close, raising the total to five timber-towing boats. The price of one of these boats (R132) was paid to the Indian Marine since the close of the year. A small four-oared boat for the use of the Depôt Forester and a dhingy complete the list of boats belonging to Government in the Forest Department.

E. G. CHESTER,

Deputy Conservator of Forests, Andamans.

PORT BLAIR,

The 9th July 1892.

Form No. 49.

Area of Unclassed State Forests and Waste Lands, 1891-92.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads	Area on 31st March 1892.		No and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Reserved Forests—*Nil.*							
				Protected Forests—*Nil.*							
				Unclassed State Forests and Waste Lands.							
Andamans	...	Andamans	...	1,252,696	1,957	...	348	1,252,348	1,957	...	These areas were cleared for cultivation, grazing, and for Government tea plantations by the Settlement, and for firewood.
			Total	1,252,696	1,957	...	348	1,252,348	1,957		

Form No. 52.

Area of Plantations, 1891-92.

Division.	Name of Plantation.	Area in Acres				Receipts	Charges	Remarks.
		On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	of the year.		
Andamans.	*Regular Plantations—*							
	Navy Bay	10	...	...	10	...	...	
	Goplakabung	71	...	...	71	...	...	
	Cultural Operations—							
	Goplakabung lines	45	...	...	45	...	298	
	Dhani Khari lines	...	188	...	188	...	1,127	
	Total	126	188	...	314	...	1,425	

Form No. 53-A.

Trees girdled by Government Agency during the year 1891-92 (Selection fellings).

Division.	Trees felled or girdled.		Remarks.
	Description.	Number.	
Andamans	Padouk	1,841	I Class.
	Pyimma	725	II „
	Lakuch	305	
	Mowa	545	III „
	Thingan (white)	85	
	Chuglam (black)	217	V „
	Koko	268	IV „
	Lalchini	222	
	Thingan (red)	137	
	Khaya	107	
	Palawa	91	
	Total	4,543	

Form No. 53-B.

Trees felled by Government Agency during the year 1891-92 (Selection fellings).

Division.	Trees felled or girdled. Description.	Number.	Remarks.
Andamans	Padouk	1,859	I class.
	Pyimma	555	II „
	Lakuch	53	
	Toungpeing-ngè	158	III „
	Gangow	152	
	Mowa	90	
	Thitmin	772	
	Thingan (white)	58	
	Marblewood	22	V „
	Chuglam (black)	9	
	Koko	145	IV „
	Gurjan	881	
	Didu	197	
	Lalchini	23	
	Lettouk	4	
	Bombway (white)	25	
	„ (red)	5	
	Chai	2	
	Chunnu	6	
	Total	5,016	

Form No. 54.

Outturn in cubic feet (solid) of Timber and Fuel during the year 1891-92 and Agency of Exploitation.

Division.	Timber in the Rough; Logs.					Timber in the Rough; Poles.					Sawn or squared Timber.					Miscellaneous.					Fuel.					Total
	Government.	Purchasers.	Free Grantees.	Right-holders	Total.	Government.	Purchasers.	Free Grantees.	District Officers.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	District Officers.	Total.	Outturn.
	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.
I.—Reserved Forests.																										
Nil.																										
Total																										
II.—Protected Forests.																										
Nil.																										
Total																										
III.—Unclassed Forests.																										
Andamans	160,971	...	...	...	160,971	...	3,250	37,500	47,650	88,400	133,053	33,450	...	...	166,503	...	...	...	...	...	...	4,462	330,000	816,174	1,150,636	1,566,510
Total	160,971	...	...	...	160,971	...	3,250	37,500	47,650	88,400	133,053	33,450	...	...	166,503	...	...	...	...	...	...	4,462	330,000	816,174	1,150,636	1,566,510

Charcoal should be shewn by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet, solid.

Sawn timber removed by purchasers = 669 tons, or . . 33,450 c. ft. net.
Bullies, Northern District 36,906
" Southern " 11,084
47,990 at ⅓ c. ft., 23,995 c. ft.

Posts, Northern District 1,219
" Southern " 657
1,876 at 10 c. ft., 18,760 "

Paries, Southern District . . . . . 979 at 5 c. ft., 4,895 "
47,650 c. ft.

Bullies, 5½ licenses at 1,000 = 5,500 bullies = 2,750 c. ft.
Posts, 1 " at 100 = 100 posts at 5 c. ft., 500 " } 3,250 c. ft.

Posts, bullies, etc. Free grantees 2,500 houses, ordinary repairs 10 bullies = 5 c. ft. and 2 posts at 5 c. ft. = 10 c. ft.
2,500 houses at 15 c. ft. = 37,500.
Firewood, Northern District 5,667½ cords.
" Southern " 2,929 "
8,596½ " = 752,194 c. ft.

" 34 one-week-licenses at 1½ cords, 51 " = 4,462 "
Charcoal, Northern District 3,134 maunds.
" Southern " 6,006 "
9,140 maunds = 63,980 "

Firewood. Free grants about 2,500 house = holders villages at 1½ cords per year = 3,750 cords = 328,125, or, say, 330,000.

Form No. 55.

Outturn of Minor Forest Produce during the year 1891-92.

Division	Description of Produce	PRODUCE REMOVED OR UTILIZED										Remarks.
		By Government Agency		By Purchasers.		By Free Grants		By District Officers.		Total.		
		Quantity.	Value	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			R		R		R		R		R	
		I.—Reserved Forests. Nil.										
		II – Protected Forests. Nil.										
		III —Unclassed State and Waste lands.										
Andamans	Bamboos . . . No.	580	9	106,000	53	500,000	250	244,900	122	851,480	434	
	Grass . . . "	..	...	.	1	...	...		...	...	1	
	Canes . . . "	325	1	103,500	35	100,000	33	197,336	67	401,161	136	In addition, canes exported were taxed and a further sum of R776 was realized.
	" roots . . . "	...	...	124,500	166	...	.	.	...	124,500	166	
	Thatching leaves . . bdls	...	. .	19,040	238	50,000	625	6,195	77	75,235	940	
	Dhup . . . mds.	...	...	57	14	...	.	. .	...	57	14	
	Tanning bark . . . "	...	...	...	...	...	.	712	25	...	25	
	Pan leaves . . .	...	...	...	2	...	...	...	.	...	2	
	Gurjan oil . . . lb	...	...	...	...	..	...	8,120	1,015	8,120	1,015	
	Elephant tusks . .	...	41	...	...	...	...	...	...	...	41	
	Total .	...	51	...	509	...	908	...	1,306	...	2,774	

Bamboos	53 licenses, say @	2 000	=	106,000
"	Northern District	177,020	=	244,900
"	Southern "	67,880		
Canes	69 licenses, say @	1,500	=	103 500
" roots,	83 " "	"	=	124,500
"	Northern District	4,090 bundles	=	102 250 = 197,336
"	Southern "			95,086
Thatch leaves,	476 licenses, say @ 40 bundles			19,040 bundles
" "	Northern District			2,313 = 6,195 bundles.
" "	Southern "			3,882
Dhup	1 license (57 maunds)			57 maunds.

Free Grants—

2,500 self-supporters' houses—

Bamboos @ 200	= 500,000
Canes " 40	= 100,000
Thatch grass, bundles @ 20	= 50,000

Form No. 56.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92.

Particulars.	No or quantity.	Cubic feet	Total of each head	
			No or quantity.	Cubic feet.
Balance at Commencement of Year in Sale Depôt—				
Haddo—				
I Class { Padouk logs	166	4,927	...	...
I Class { Padouk squares				
II „ { Pyimma logs	43	603	...	...
II „ { Pyimma squares	16	445	...	...
II „ { Lakuch logs	34	373	...	...
III „ { Toungpeing-ngé logs	214	2,372	...	...
III „ { Toungpeing-ngé squares	13	513	...	...
III „ { Thingan (white) logs	37	342	...	...
III „ { „ „ squares	2	76	...	...
III „ { Thitmin logs	13	191	...	...
III „ { Mowa logs	15	184	...	...
III „ { Mowa squares	3	58	...	...
V „ { Marblewood logs	11	102	...	...
V „ { „ square	1	6	...	...
V „ { Chuglom (black) logs	27	600	...	...
IV „ { Koko logs	21	397	...	...
IV „ { „ squares	1	64	...	...
IV „ { Guijan logs	17	507	...	...
IV „ { „ squares	2	108	...	...
IV „ { Thaigai logs	4	81	...	...
IV „ { Lalchini „	38	423	...	...
IV „ { Thingan (red) logs	4	111	...	...
IV „ { Palawa logs	39	131	...	...
IV „ { Lettouk „	1	7	...	...
IV „ { Chai „	1	2	...	...
I „ { Padouk crooks	14	110	...	...
I „ { „ planks	...	316	737	13,049*
Hobdaypur Ghât—				
Padouk log	1		...	...

Particulars	No or quantity.	Cubic feet	Total of each head.	
			No. or quantity.	Cubic feet.
Padouk squares	211	...	...	..
Mowa log	1	...	...	..
Palawa log	1	...	214	8,517*
Hobdaypur Sawpit—				
Padouk logs	7	1,480	...	...
„ squares	30			...
Koko logs	3	90	40	1,570*
Padouk planks	...	1,800	...	...
Koko „	...	677	...	2,477
Shore Point—				
Padouk squares	231	9,231	...	...
Marblewood logs	1	19	232	9,250
Removed by purchasers from Depôt—				
Haddo—				
Padouk squares	329	14,958	...	...
„ logs	4	97	...	...
Pyimma logs	403	12,283	...	...
„ squares	131	5,843	...	...
Lakuch logs	29	704	...	...
„ squares	4	94	...	...
Toungpeing-ngé logs	203	4,612	...	...
„ squares	15	570	...	...
Gangow logs	178	2,496	...	...
„ squares	4	71	...	...
Thingan (white) logs	67	2,157	...	...
„ „ squares	18	647	...	...
Thitmin logs	334	5,267	...	...
Mowa logs	183	3,867	...	...
„ squares	8	292	...	...
Marblewood logs	1	7	...	...
Chuglom (black) logs	21	509	...	...

* This amount is that found on taking stock, the figure shown in this return for 1890-91 was merely an estimate, as shown in paragraph 19 of the report for that year.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92—continued.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Chuglom (black) squares	4	231	...	...
Koko logs	112	2,822	...	...
" squares	3	99	...	...
Lalchini logs	26	5 5	...	...
" squares	3	184	...	...
Lettouk logs	2	24	...	...
Chai "	3	10	...	...
Thingan (red) squares	1	36	2,086	58,585
Padouk shingles	...	400	...	...
Pyimma "	...	1,093	...	...
Marblewood scantlings	...	13	...	...
Gurjan "	...	117	...	1,623
Shore Point—				
Padouk squares	274	12,180	...	...
Thitmin logs	332	4,628	606	16,808
Chatham—				
Padouk scantlings	...	2,836	...	...
" shingles	...	1,534	...	...
Pyimma "	...	2,292	...	...
" scantlings	...	2,936	...	...
Lakuch squares	...	251	...	...
Toungpeing-ngé scantlings	...	4,917	...	...
" " (rejected)	...	160	...	...
Thitmin scantlings	...	43	...	...
Mowa "	...	107	...	...
Gangow "	...	272	...	...
Dundas Point—				
Padouk squares	94	3,760	94	3,760
Chatham—				
Padouk log	1	15	...	...
" squares	5	253	...	...
Pyimma logs	5	116	...	...
Toungpeing-ngé logs	76	1,797	...	...
Gangow logs	17	183	...	...
Dhani Khari Saw Mill—				
Padouk shingles	...	173	...	...
Pyimma "	...	1,129	...	...
Toungpeing-ngé scantling (rejected)	...	5	...	...
Marblewood "	...	10	...	...
Gurjan "	...	3,954	...	...
" " (rejected)	...	31	...	...
Didu planks	...	321	...	5,623
Calcutta—				
Padouk squares	48	1,890	...	...
" scantling	...	1,263	...	...
Gurjan planks	...	903	48	4,056
Madras—				
Padouk squares	3	115	...	...
" logs	36	1,303	...	...
Pyimma squares	98	3,914	...	...
Thingan (white) logs	14	397	...	...
Mowa logs	41	772	...	...
" sleepers	6	21	...	...
Gangow logs	32	583	...	...
Gurjan planks	...	3,062	230	10,167
London—				
Padouk squares	1,423	57,295	...	...
" planks	...	17,959	...	...
Pyimma "	...	13	...	...
Lakuch "	...	90	...	...
Mowa "	...	46	...	...
Gangow "	...	27	...	...
Thitmin "	...	286	...	...
Marblewood "	...	77	...	...
Koko "	...	716	1,423	76,500
Grand Total removed by purchasers	...	...	4,393	215,314

Marblewood logs	4	41	...	...
Koko "	2	37	...	...
Gurjan "	55	5,587	...	...
Chunnu "	4	82	...	...
Lalchini "	1	42	...	...
Didu "	2	47	172	8.200
Padouk scantling	...	374	...	...
" squares	57	2,199	...	...
Pyimma scantling	...	48	...	...
Lakuch "	...	139	...	...
Gangow "	...	116	...	...
Mowa "	...	262	...	...
Gurjan "	...	1,530	57	4,668
Garacharama—				
Gurjan logs	23	1,417	...	...
Didu "	1	37	...	...
Gurjan planks	...	122	...	...
" battens	...	25	...	...
Didu planks	...	1	24	1,602
Dhani Khari Saw Mill—				
Pyimma sleepers	...	60	...	...
Lakuch "	...	38	...	...
Toungpeing-ngé "	...	294	...	...
Thingan (white) "	...	67	...	...
Mowa "	...	41	...	...
Koko "	...	319	...	...
Lalchini "	...	99	...	...
Gurjan planks	...	84	...	1,002
Calcutta—				
Padouk squares	105	4,060	...	...
" scantlings	...	2,878	...	...
" beam	1	28	106	6,966
Madras—				
Padouk squares	23	865	...	...
" logs	16	536	...	...
Gangow "	32	608	...	...
Thingan (white) "	14	420	...	...
Mowa "	41	729	...	...
Gurjan planks	...	4,274	126	7,432
Marblewood scantling	...	5	...	...
Koko "	...	24	...	...
Gurjan "	...	23,619	...	...
" " (rejected)	...	2,406	...	...
" slabs	...	750	...	42,152
Received from forest and sold locally—				
Pyimma squares	1	33	...	...
" logs	55	2,062	...	...
Thingan (white) logs	1	24	...	...
Mowa logs	21	713	...	...
Thitmin "	4	83	...	...
Koko "	10	421	92	3,336
Bombay—				
Didu planks	...	30	...	30
London—				
Padouk squares	1,420	56 577	...	...
" planks	...	17,638	...	...
Pyimma "	...	13	...	...
Lukuch "	...	90	...	...
Gangow "	...	27	...	...
Thitmin "	...	286	...	...
Mowa "	...	46	...	...
Marblewood "	...	77	...	...
Koko "	...	716	1,420	75,470
GRAND TOTAL OPENING BALANCE	—	...	3,222	133,9[illegible]6
	...	...	...	10,087*
RECEIVED FROM FOREST DEPÔTS IN SALE DEPÔTS—				
Haddo—				
Padouk logs	213	5,862	...	...
" squares	401	19,856	...	...
Pyimma logs	740	21,597	...	...
" squares	237	11,052	...	...
Lakuch logs	49	1,032	...	...
" squares	8	257	...	...
Taungpeing-ngé logs	480	9,762	...	...
" squares	22	828	...	...
Gangow logs	311	3,676	...	...
" squares	4	71	...	...
Thingan (white) logs	76	2.691	...	...
" squares	2	50	...	...
Thitmin logs	350	5,285	...	...
Mowa "	195	4,135	...	—
" squares	6	256	...	...
Marblewood logs	19	398	...	...
Chuglom (black) logs	12	493	...	...
" squares	3	190	...	...

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92—continued.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Koko logs	154	3,795	...	...
" squares	7	206	...	...
Gurjan logs	2,321	44,428	...	...
" squares	1	28	...	...
Lalchini logs	33	627	...	...
" squares	4	239	...	...
Palowa logs	1	10	...	...
Lettouk "	5	76	...	...
Thingan (red) logs	5	157	...	...
" squares	2	57	...	...
Converted in Depôts—				
Haddo—				
Pyimma logs	23	1,220	...	...
Thingan (white) logs	14	604	37	1,824
Dundas Point—				
Padouk squares	3	...	3	...
Chatham—				
Padouk squares	21	919	21	919
" "	294	12,030	...	...
" logs	217	4,885	...	...
Pyimma logs	357	9,115	...	...
" squares	39	1,946	...	...
Lakuch logs	25	466	...	...
" squares	2	54	...	...
Toungpeing-ngé logs	387	7,793	...	...
" squares	16	672	...	...
Gangow logs	124	1,083	...	...
Mowa "	15	3 9	...	...
" squares	1	33	...	...
Thitmin logs	5	6	...	...
Marblewood logs	16	330	...	...
Koko logs	53	1,283	...	...
Pyimma logs	145	3,694	...	...
Toungpeing-ngé logs	2	30	...	...
Thingan (white) "	1	24	...	...
Mowa "	8	189	...	...
Marblewood "	27	372	...	...
Koko "	4	112	...	...
Gurjan "	558	14,915	...	...
Lalchini "	3	215	...	...
Didu "	136	4,723	...	...
Palawa "	2	15	945	25,590
London—				
Padouk squares	18	780	18	780
Grand Total Receipts from Forests in Sale Depôts	...	...	10,220	255,118 34,765*
Purchased—				
Padouk planks	...	520	...	...
" "	...	285	...	805
Transfer between Sale Depôts—				
From Haddo to Chatham—				
Padouk squares	177	7,044	...	..
" logs	218	4,887	...	...
Pyimma "	353	8,991	...	...
" squares	39	1,900	...	...
Lakuch logs	33	524	...	...
" squares	2	54	...	...
Toungpeing-ngé logs	350	6,531	...	...
" squares	16	657	...	...
Gangow logs	126	1,014	...	...
Thitmin "	2	33	...	...

„ squares	5	156	...	...
Gurjan logs	2,203	44,080	...	...
„ squares	2	141	...	...
Didu logs	59	2,650	...	...
Chunnu logs	4	46	...	...
Lalchini „	4	59	...	...
Lettouk „	2	29	3,830	87,226
Dhani Khari Saw Mill—				
Padouk squares	10	309	...	...
„ logs	41	594	...	...
Pyimma squares	4	362	...	...
„ logs	140	3,554	...	...
Toungpeing-ngé logs	2	30	...	...
Thingán (white) „	1	24	...	...
Mowa „	8	189	...	...
Marblewood „	27	372	...	...
Koko „	4	112	...	...
Gurjan „	558	14,915	...	...
Lalchini „	3	215	...	...
Didu „	136	4,733	...	...
Palawa „	2	15	936	25,424
Didu „	404	15,589	...	...
Chunnu „	12	233	...	...
Padouk crooks	3	79	6,080	153,015
Hobdaypur Ghât—				
Padouk squares	670	...	...	...
Pyimma logs	39	...	...	...
Toungpeing-ngé logs	79	...	...	...
Thingan (white) „	4	...	...	...
Mowa „	31	...	...	...
Marblewood „	7	...	...	...
Koko „	36	...	...	...
Chai „	3	...	869	34,765*
Shore Point—				
Padouk squares	666	30,278	...	...
Thitmin logs	768	8,209	1,434	38,487
Dundas Point—				
Padouk squares	874	37,246	874	37,246
Dhani Khari Saw Mill—				
Padouk squares	10	309	...	...
„ logs	45	630	...	...
Pyimma squares	4	362	...	

Mowa „	16	304	...	...
„ squares	1	53	...	...
Marblewood logs	17	353	...	...
Chuglom (black) „	2	35	...	...
Koko logs	54	1,178	..	...
„ squares	5	152	...	...
Gurjan logs	2,314	43,204	...	...
„ squares	1	28	...	...
Lalchini logs	3	18	...	...
Lettouk „	2	27	...	...
Didu „	146	5 552	...	...
Chunnu „	2	46	3,879	82,565
Haddo to Calcutta—				
Didu planks	...	60	...	60
Haddo to Madras—				
Pyimma squares	97	4,420	97	4,420
Haddo to London—				
Padouk squares	265	12,428	...	...
Thitmin logs	37	419	302	12,847
Padouk planks	...	417	...	417
Hobdaypur Ghât to Haddo—				
Padouk squares	211	...	...	...
Pyimma logs	28	..	...	...
Toungpeing-ngé logs	55	...	...	...
Mowa „	3	...	...	...
Marblewood „	1		...	...
Chai „	3	...	301	...
Hobdaypur Ghât to Shore Point—				
Padouk squares	86	...	86	...
Hobdaypur Ghât to Dundas Point—				
Padouk squares	30	...	30	...
Hobdaypur Ghât to Chatham—				
Padouk squares	50	...	50	...
Received from forests and sold locally—				
Pyimma squares	1	33	...	...
„ logs	55	2,062	...	...
Thingan (white) logs	1	24	...	...
Mowa logs	21	713	...	...
Thitmin „	..	4	83	...
Koko „	10	421	92	3,336

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92—continued.

Particulars.	No or quantity.	Cubic feet.	Total of each head. No or quantity.	Total of each head. Cubic feet.
Received by transfer from Sale Depôts—				
Haddo from Hobdaypur Ghât—				
Padouk squares	211	9,819	...	...
Pyimma logs	28	640	...	...
Toungpeing-ngé logs	55	1,160	...	...
Mowa "	3	59	...	...
Marblewood "	1	12	...	...
Chai "	3	10	301	11,700
Haddo from Shore Point—				
Padouk squares	160	6,521	...	...
Thitmin logs	45	510	...	...
Marblewood logs	1	19	206	7,050
Haddo from Dundas Point—				
Padouk squares	2	209	2	209
Haddo from Chatham—				
Padouk squares	10	362	10	362
Haddo from Garacharama—				
Gurjan scantling	...	133	...	133
Haddo from Dhani Khari Saw Mill—				
Pyimma squares	8	308	8	308
Padouk shingles	...	400	...	...
Pyimma "	...	1,093	...	...
Marblewood scantling	...	27	...	...
Didu "	...	807	...	2,327
Hobdaypur Ghât from Hobdaypur Sawpit—				
Padouk squares	30	...	30	...
" planks	...	196	...	196
Dundas Point to London—				
Padouk squares	987	39,337	987	39,337
Chatham to Haddo—				
Padouk squares	10	362	10	362
Chatham to Calcutta—				
Padouk scantling	...	50	...	...
Gurjan "	...	903	...	953
Chatham to London—				
Padouk squares	55	2,189	...	...
" scantling	...	6,416	...	...
Gangow "	...	7	55	8,612
Garacharama to Haddo—				
Gurjan scantling	...	133	...	133
Dhani Khari Saw Mill to Haddo—				
Pyimma squares	8	308	8	308
Padouk shingles	...	400	...	...
Pyimma "	...	1,093	...	...
Marblewood scantling	...	27	...	...
Didu "	...	807	...	2,327
Chatham from Haddo—				
Padouk squares	177	7,044	...	...
" logs	218	4,887	...	...
Pyimma logs	353	8,991	...	...
" squares	39	1,900	...	...
Lakuch logs	33	524	...	...
" squares	2	54	...	...
Toungpeing-ngé logs	350	6,531	...	...
" squares	16	657	...	...
Gangow logs	126	1,014	...	...
Mowa logs	16	304	...	...
" squares	1	33	...	...

Shore Point from Hobdaypur Ghât—				
Padouk squares	86	3,804	86	3,804
Shore Point from Dundas Point—				
Padouk squares	12	720	12	720
Dundas Point from Hobdaypur Ghât—				
Padouk squares	30	1,350	30	1,350
Dundas Point from Shore Point—				
Padouk squares	2	35	2	35
Hobdaypur Ghat to London—				
Padouk squares	397	...	397	...
„ planks	...	716	...	716
Hobdaypur Sawpit to Hobdaypur Ghât—				
Padouk planks	...	196	...	196
„ squares	30	...	30	...
Hobdaypur Sawpit to London—				
Padouk planks	...	1,703	...	...
Koko „	...	632	...	2,335
Shore Point to Haddo—				
Padouk squares	160	6,521	...	...
Thitmin logs	45	510	...	...
Marblewood logs	1	19	206	7,050
Shore Point to Dundas Point—				
Padouk squares	2	35	2	35
Shore Point to Chatham—				
Padouk squares	69	3,513	...	...
Thitmin logs	1	4	70	3,517
Shore Point to Calcutta—				
Padouk squares	131	5,115	131	5,115
Shore Point to London—				
Padouk squares	317	15,248	317	15,248
Dundas Point to Haddo—				
Padouk squares	2	209	2	209
Dundas Point to Shore Point—				
Padouk squares	12	720	12	720
Thitmin logs	2	33	...	...
Marblewood logs	17	353	...	...
Chuglom (black) logs	2	35	...	...
Koko logs	54	1,178	...	...
„ squares	5	152	...	...
Gurjan logs	2,314	43,204	...	...
„ square	1	28	...	...
Didu logs	146	5,552	...	...
Chunnu logs	2	46	...	...
Lakhini „	3	18	...	...
Lettouk „	2	27	3,879	82,565
Chatham from Hobdaypur Ghat—				
Padouk squares	50	1,404	50	1,404
Chatham from Shore Point—				
Padouk squares	69	3,513	...	...
Thitmin logs	1	4	70	3,517
Chatham from Dhani Khari Saw Mill—				
Gurjan scantling	...	445	...	445
Calcutta from Haddo—				
Didu planks	...	60	...	60
Calcutta from Shore Point—				
Padouk squares	131	5,115	131	5,115
Calcutta from Chatham—				
Padouk scantling	...	50	...	...
Gurjan „	...	903	...	953
Madras from Haddo—				
Pyimma squares	97	4,420	97	4,420
London from Haddo—				
Padouk squares	265	12,428	...	...
„ planks	...	417	...	...
Thitmin logs	37	419	302	13,264
Dhani Khari Saw Mill to Chatham—				
Gurjan scantling	...	445	...	445

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92—continued.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Difference on taking stock and re-measurement—				
Haddo—				
Pyimma square	...	414	...	...
Thingan (white) square	...	83	...	...
Chuglom (black) "	...	4	...	...
Gurjan logs	...	1,197	...	...
Koko square	...	19	...	1,717
Hobdaypur Sawpit—				
Padouk planks	...	97	...	97
Shore Point—				
Thitmin logs	...	390	...	390
Dundas Point—				
Padouk squares	6	220	6	220
Chatham—				
Padouk square	...	26	...	...
" "	...	214	...	...
Chunnu logs	...	36	...	...
Lalchini "	...	1	...	277
Madras—				
Pyimma square	...	531	...	...
Thingan (white) logs	...	23	...	...
Gangow logs	...	25	...	...
Gurjan planks	...	1,212	...	1,791
Used by the Department—				
Haddo—				
Thitmin logs	3	24	3	24
Gurjan planks	...	4	...	4
Lettouk logs	2	20	...	...
Didu "	11	487	...	...
Chunnu "	2	24	108	3,810
Padouk planks	...	30	...	30
Shore Point—				
Padouk squares	6	401	...	...
Toungpeing-ngé logs	1	34	7	435
Dundas Point—				
Padouk squares	61	...	61	...
Chatham—				
Toungpeing-ngé logs	8	43	...	...
" " (rejected)	33	283	...	...
Thitmin logs	2	20	...	...
Gurjan logs (rejected)	23	306	...	...
Dhani Khari Saw Mill—				
Padouk scantling	...	1	...	...
Pyimma "	...	52	...	...
" sleepers	...	99	...	...
Lakuch "	...	39	...	...
Toungpeing-ngé sleepers	...	308	...	...
Thingan (white) "	...	86	...	...
Mowa sleepers	...	70	...	...
" rails	...	46	...	...
Marblewood scantling	...	2	...	...
Gurjan "	...	117	...	...
" sleepers	...	669	...	...
Koko "	...	345	...	...
Lalchini "	...	205	...	...
Palawa scantling	...	22	...	...
Didu "	...	8	...	2,069

Chatham—				
Padouk scantling	...	92	...	...
Pyimma "	...	179	...	...
Lakuch "	...	200	...	...
Toungpeing-ngé scantling	...	3	...	...
Mowa scantling	...	282	...	...
Gangow "	...	360	...	...
Gurjan "	...	2	...	...
Gurjan slabs	...	258	...	1,376
London from Hobdaypur Ghât—				
Padouk squares	397	14,488	...	...
" planks	...	716	397	15,204
London from Hobdaypur Sawpit—				
Padouk planks	...	1,703	...	...
Koko "	...	632	...	2,335
London from Shore Point—				
Padouk squares	317	15,248	317	15,248
London from Dundas Point—				
Padouk squares	987	39,337	987	39,337
London from Chatham—				
Padouk squares	55	2,189	...	...
" planks	...	6,416	...	...
Gangow "	...	7	55	8,612
FOUND AND RECOVERED—				
Haddo—				
Padouk squares	49	2,491	...	...
" logs	13	228	...	...
Pyimma logs	6	163	...	...
Toungpeing-ngé logs	8	97	...	...
" squares	2	83	...	...
Gangow logs	1	5	...	...
Thingan (white) logs	1	8	...	...
Thitmin logs	4	35	...	...
Mohwa "	1	13	...	...
Chuglom (black) logs	1	22	...	...
Koko "	2	47	...	...
Gurjan "	1	37	...	...
Lalchini "	4	50	...	...

USED BY SAW MILL—				
Chatham—				
Padouk scantling	...	39	...	...
Pyimma "	...	9	...	...
Toungpeing-ngé scantling	...	45	...	...
Gangow scantling	...	8	...	101
Toungpeing-ngé logs (rejected)	33	283	...	...
Chuglam (black) " "	2	38	...	...
Gurjan logs "	23	306	...	...
Didu " "	2	38	...	...
Lalchini logs "	1	12	61	677
LOST AND WRITTEN OFF AS USELESS—				
Haddo—				
Padouk squares	12	697	...	...
" logs	38	954	...	...
Pyimma "	37	649	...	..
" squares	15	351	...	...
Lakuch logs	5	60	...	...
" squares	2	109	...	...
Toungpeing-ngé logs	172	2,259	...	...
" squares	4	127	...	...
Gangow logs	8	216	...	...
Thingan (white) logs	20	101	...	...
Thitmin logs	27	408	...	...
Mowa "	15	245	...	...
Didu logs (rejected)	2	38	...	...
Lalchini logs	1	12	69	702
Dhani Khari Saw Mill—				
Toungpeing-ngé planks (rejected)	...	5	...	...
Gurjan " "	...	94	...	99
Madras—				
Pyimma squares	1	25	1	25
RECEIVED BY CONVERSION IN DEPÔT—				
Haddo—				
Pyimma squares	23	1,220	...	...
Thingan (white) squares	14	604	37	1,824
Dundas Point—				
Padouk squares	6	...	6	...

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92—continued

Particulars.	No or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Chatham—				
Padouk squares	30	1,560	...	...
" scantling	...	9,346	...	...
" shingles	...	1,553	...	...
Pyimma shingles	...	2,317	...	...
" scantling	...	3,116	...	...
Lakuch "	...	65	...	...
" squares	...	251	...	...
Toungpeing-ngé scantling	...	4,965	...	...
" " (rejected)	...	160	...	...
Thitmin scantling	...	43	...	...
Mowa "	...	127	...	...
Gangow "	...	542	...	...
Marblewood scantling	...	11	...	...
Koko "	...	750	...	...
Gurjan "	...	22,634	...	...
" " (rejected)	...	2,364	...	...
" slabs	...	238	...	...
Didu scantling	...	972	...	...
Lalchini "	...	24	30	51,088
Dhani Khari Saw Mill—				
Padouk scantling	...	1	...	...
" shingles	...	509	...	...
Pyimma "	...	2,229	...	...
" scantling	...	52	...	...
" sleepers	...	39	...	...
" squares	9	353	...	...
Toungpeing-ngé sleepers	...	14	...	...
Thingan (white) "	...	19	...	...
Mowa sleepers	...	29	...	...
" rails	...	46	...	...
Marblewood logs	7	87	...	...
" squares	1	6	...	...
Chuglom (black) logs	16	527	...	...
Gurjan logs	13	175	...	...
Gangow squares	2	108	...	...
Lalchini logs	25	247	...	...
Mowa scantling	...	13	...	...
Marblewood scantling	...	58	...	...
Koko sleepers	...	26	...	...
Gurjan "	...	669	...	...
" scantling	...	6,967	...	...
" " (rejected)	...	235	...	...
Lachini sleepers	...	106	...	...
Palawa scantling	...	22	...	...
Didu "	...	1,538	9	12,925
Brought on stock—				
Madras—				
Mowa sleepers	6	21	6	21
Received by re-measurement in depôts—				
Haddo—				
Pyimma logs	...	196	...	...
Lakuch "	...	97	...	...
Toungpeing-ngé logs	...	385	...	...
Gangow logs	...	36	...	...
Thitmin "	...	254	...	...
Mowa "	...	80	...	...
" squares	...	11	...	...
Chuglam (black) squares	...	18	...	...
Koko logs	...	118	...	1,195
Padouk planks	...	80	...	80
Hobdypur Sawpit—				
Koko planks	...	15	...	15
Shore Point—				
Padouk squares	...	85	...	85

Palawa „	40	141	...	...
Chai „	1	2	...	...
Thingan (red) logs	4	122	...	...
„ „ square	1	21	...	...
Koko logs	14	376	479	7,988
Hobdaypur Ghât—				
Padouk squares	28	...	28	...
Shore Point—				
Padouk squares	5	187	...	...
Thitmin logs	3	29	8	216
Dundas Point—				
Padouk squares	50	1,625	50	1,625
Chatham—				
Toungpeing-ngé logs	27	248	...	...
Gangow „	6	49	...	...
Mowa „	1	27	...	...
Koko „	1	35	...	...
Gurjan „	46	807	81	1,166
Garacharama—				
Gurjan scantling	...	14	...	...
Didu „	...	1	...	15
TRANSFERRED TO OTHER HEADS—				
Haddo—				
Lakuch logs	6	77	...	...
Toungpeing-nge square	1	27	...	...
Thingun (white) logs	6	96	...	...
Mowa logs	1	15	14	215
Chatham—				
Pyimma logs	1	19	...	...
Gurjan „	1	93	2	112
Gurjan scantling	...	42	...	42
Madras—				
Padouk squares	20	750	20	750
FREE GRANT TO COMMISSARIAT DEPARTMENT—				
Chatham—				
Gurjan slabs	...	30	...	30
Chatham—				
Pyimma logs	...	27	...	...
„ squares	...	46	...	...
Toungpeing-ngé squares	...	15	...	...
Mowa logs	...	32	...	...
Chuglom (black) logs	...	3	...	...
Koko logs	...	133	...	...
„ squares	...	4	...	...
Gurjan „	...	20	...	...
Lettouk logs	...	2	...	282
BALANCE AT CLOSE OF YEAR—				
Haddo—				
Padouk squares	138	7,610	...	...
„ logs	44	1,600	...	...
Pyimma „	1	56	...	...
„ squares	2	97	...	...
Lakuch logs	10	137	...	...
Toungpeing-ngé logs	32	374	...	...
„ squares	1	43	...	...
Gangow logs	1	6	...	...
Thingan (white) logs	7	83	...	...
Thitmin „	9	124	...	...
Mowa „	1	61	...	...
Marblewood „	7	84	...	...
Chuglom (black) „	1	44	...	...
Koko „	1	24	...	...
Gurjan „	12	396	...	...
Thabyai „	4	81	...	...
Lalchini „	25	405	...	...
„ square	1	55	...	...
Lattouk logs	6	86	...	...
Thingan (red) logs	5	146	...	...
Didu logs	269	10,524	...	...
Chunnu logs	12	211	...	...
Padouk crooks	17	189	606	22,436
„ planks	...	9	...	...
Marblewood „	...	14	...	...
Gurjan „	...	12	...	...
Didu „	...	747	...	782
Hobdaypur Ghât—				
Padouk squares	109	...	...	...
„ log	1	...	...	...
Pyimma logs	11	...	...	...
Toungpeing-ngé logs	24	...	...	...

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally, during the year 1891-92.—concluded.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Thingan (white) logs	4	...	...	...
Mowa "	29	...	...	...
Marblewood "	6	...	...	...
Koko "	36	...	...	...
Palawa "	1	...	221	7,465*
Hobdaypur Sawpit—				
Padouk logs	7	...	...	...
Koko "	3	...	10	355*
Padouk planks	...	89	...	...
Koko "	...	60	...	149
Chatham—				
Padouk scantling	...	7	...	7
Dhani Khari Saw Mill—				
Didu logs	...	10	...	10
Padouk shingles	...	68	...	...
Lakuch sleepers	...	1	...	...
Gurjan scantling (rejected)	...	17	...	...
Didu scantling	...	34	...	120
Madras—				
Padouk logs	...	17	...	
Mowa "	...	43	...	60
London—				
Padouk squares	3	718	...	...
" planks	...	315	3	1,033
Received by transfer from other heads—				
Haddo—				
Gangow logs	1	15	...	...
Mowa "	2	21	...	...
Chuglom (black) square	1	27	...	...
Lalchini logs	4	75	...	...
Lettouk "	2	34	...	...
Lakuch logs	8	58	...	...
Toungpeing-ngé logs	20	330	...	...
Gangow "	13	65	...	...
Thitmin "	1	10	...	...
Marblewood "	5	64	...	...
Koko "	2	30	...	...
Gurjan "	119	3,811	...	...
Didu "	89	2,949	...	...
Chunnu "	2	46	268	7,538
Padouk square	1	75	...	...
" scantling	...	294	...	...
" shingles	...	19	...	...
Pyimma "	...	25	...	...
" scantling	...	40	...	...
Lakuch "	...	4	...	...
Gangow "	...	11	...	...
Marblewood scantling	...	6	...	...
Gurjan scantling	...	43	...	...
Didu "	...	972	1	1,489
Guracharama—				
Gurjan logs	23	1,417	...	...
Didu "	1	37	24	1,454
Dhani Khari Saw Mill—				
Padouk logs	4	36	...	...
Pyimma "	5	140	9	176
Padouk shingles	...	4	...	...
Pyimma "	...	7	...	...
" square	1	45	...	...
Mowa scantling	...	13	...	...
Marblewood "	...	19	...	...
Gurjan "	...	2,535	...	...
" " (rejected)	...	315	...	...
Didu scantling	...	436	1	3,374
Calcutta—				
Padouk squares	188	7,285	...	...

Koko "	4	43	14	215
Chatham—				
Thitmin logs	1	19	...	...
Gurjan square	1	93	2	112
" scantling (rejected)	...	42	...	42
Madras—				
Padouk logs	20	750	20	750
Shore Point—				
Padouk squares	43	1,720	...	...
Toungpeing-ngé logs	1	34	...	...
Thitmin logs	387	2,648	431	4,402
Dundas Point—				
Padouk squares	7	280	7	280
Chatham—				
Padouk squares	7	158	...	...
" logs	2	17	...	...

Padouk scantling	...	1,665	...	...
" beams	1	28	...	...
Didu planks	...	60	189	9,038
Bombay—				
Didu planks	...	30	...	30
London—				
Padouk squares	2,039	84,470	...	...
" planks	...	9,255	...	...
Gangow "	...	7	...	...
Thitmin logs	37	419	...	...
Koko planks	...	632	2,076	94,783
GRAND TOTAL CLOSING BALANCE	...	...	3,843	145,931
				7,820*
TOTAL	...	...	20,879	688,803

* Figures thus marked not included in the Grand Total.

Annual Form No. 57 A.

Abstract showing the Value of Timber and Other Produce at Sale Depôts for the year 1891-92.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	C. ft.	Value.	No.	C. ft.	Value.	In favor of the year.	Against the year.	
			R			R	R	R	
Haddo—									
Logs	779	21,009	8,403	606	22,436	8,974	571	...	
Planks	...	...	...	...	782	...	...	...	
Hobdaypore Ghat—									
Logs	214	8,517	4,258	221	7,465	3,732	...	526	
Hobdaypore Sawpit—									
Logs	40	1,570	471	10	355	...	...	471	
Planks	...	2,477	1,238	...	149	...	...	1,238	
Shore Point—									
Logs	232	9,250	4,625	431	4,402	2,201	...	2,424	
Dundas Point—									
Logs	94	3,760	2,256	7	280	168	...	2,088	
Chatham—									
Logs	172	8,200	1,640	268	7,538	1,507	...	133	
Sawn timber	...	4,668	2,987	...	1,489	893	...	2,094	
Garacharama—									
Logs	24	1,602	256	24	1,454	...	...	256	
Dhani Khari Saw-mill—									
Logs	...	...	...	9	176	...	...	...	
Sawn Timber	...	1,002	480	...	3,374	1,349	869	...	
Calcutta—									
Padouk logs	105	4,060	4,466	189	7,313	7,313	2,847	...	
" planks	...	2,906	4,068	...	1,725	1,725	...	2,343	
Madras—									
Logs	126	3,158	2,526	...	...	...	...	2,526	
Sleepers	...	...	...	...	...	...	...	...	
Gurjan planks	...	4,274	3,419	...	...	...	...	3,419	
Bombay—									
Didu planks	...	30	...	...	30	...	...	...	
London—									
Padouk squares	1,420	56,577	67,892	2,039	84,470	101,364	33,472	...	For R 38,010 Against 27,947 Net for 10,063
" planks	...	17,638	21,165	...	9,255	11,106	...	10,059	
Other "	...	1,255	753	...	639	383	...	370	
Thitmin logs	...	...	...	37	419	251	251	...	
Total	3,206	151,953	130,903	3,841	153,751	140,966	38,010	27,947	

Annual Form No. 57 B.

Abstract showing the Value of Live Stock for the year 1891-92.

Description of Timber and other produce.	On hand at commencement of the year		On hand at close of the year		Difference in Value		Remarks
	No.	Value	No	Value	In favor of the year	Against the year	
		R		R	R	R	
Elephants	16	29,160	16 4	22,760 14,400	8,000	...	One Elephant, "Malatoo," belonging to the Settlement, but used by Forest Department, not entered in this list
Buffaloes	21	700	23	550	...	150	With the object of, deducting 10 per cent per annum for depreciation in value of elephants, as each animal costs, delivered, nearly R4,000, it is proposed to deduct R400 yearly on value of each elephant alive at close of year, and if an elephant dies, R4,000, less R400, for every year it has worked
Boats (timber towing)	...	...	5	2,500	2,500	...	
Carts, sling	...	..	5	500	500	...	
„ small	...	...	4	100	100	...	
Crane	...	...	1	1,500	1,500	...	
Portable tramway, 2½ miles, with 10 trucks (R22,293 less 10 per cent)	...	...	...	20,000	20,000	...	
Office furniture	...	...	...	160	160	...	
Sample padouk tables	...	...	2	25	25	...	
Total	...	29,860	...	62,495	32,785	150	

	R
Deduct for 16 Elephants	6,400
Add for 4 Elephants	16,000
Deduct for ditto	1,600
Value of a buffalo	40
Deduct for each buffalo	10

	R
For the year	33,785
Against	150
Net for	32,635

Annual Form No. 58.

Summary of Revenue Expenditure of the different Divisions during 1891-92.

RECEIPTS.

	R	a.	p.
I.—Timber and other produce removed from the Forests by Government Agency—			
a. Timber	2,68,857	14	5
b. Firewood and charcoal	.....		
c Bamboos	8	10	9
d. Sandal-wood	....		
e. Grass and other minor produce	42	11	0
II.—Timber and other produce removed from the Forests by consumers or purchasers—			
a. Timber	2,056	15	10
b. Firewood and charcoal	34	0	0
c. Bamboos	53	0	0
d. Grazing and fodder grass	1	0	0
e. Other minor produce	1,231	4	0
III.—Drift and waifwood and confiscated Forest Produce—			
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	.....		
b Revenue from shared and private forests	...		
V.—Miscellaneous—			
a. Fines and forfeitures	.....		
b. Refunds	.....		
c. Other sources	52	13	0
Total Receipts	2,72,338	5	0

A.—CONSERVANCY AND WORKS.

	R	a.	p.
I.—Timber and other produce removed from the Forests by Government Agency—			
a. Timber	1,29,723	6	6
b. Firewood and charcoal	.....		
c. Bamboos	.....		
d. Sandal-wood	.....		
e. Grass and other minor produce	3	7	9
II.—Timber and other produce removed from the Forests by consumers or purchasers	240	5	1
III.—Drift and wiafwood and confiscated Forest Produce	.....		
IV.—Revenue from Forests not managed by Government—			
a. Duty on foreign timber and other forest produce	.....		
b. Revenue from shared and private forests	.....		
V.—Rent of leased Forests and payments to shareholders in Forests managed by Government	.....		
VI.—Live Stock, Stores, Tools and Plant—			
a. Purchase of cattle	40	0	0
b. Feed and keep of cattle	13,323	8	3
c. Purchase of stores, tools and plant	2,523	7	9
VII.—Communications and Buildings—			
a. Roads and bridges	11,454	8	2
b. Buildings	1,483	9	11
c. Other works	.....		
VIII.—Demarcation, Improvement and Extension of Forests—			
a. Demarcation	314	10	3
b. Compensation for land and rights	108	4	6
c. Surveys and working plans	.....		
d. Sowing and planting	1,425	2	2
e. Protection from fire	.....		
f. Other works	.....		
IX.—Miscellaneous—			
a. Refunds	.....		
b. Law charges	.....		
c. Other charges	4,474	5	4
Total A.—Conservancy and Works	1,65,114	11	8

B.—ESTABLISHMENT.

I.—Salaries—			
a. Conservators	...		
b. Superior officers	10,095	2	6
c. Subordinate forest and depôt establishments	1,693	1	4
d. Office establishments	960	0	0
e. Deputation and special allowances	48	0	0

	R	a.	p.
II.—Travelling Allowances—			
a. Conservators	...		
b. Superior officers	1,469	0	0
c. Subordinate forest and depôt establishments	89	5	4
d. Office establishments	1	10	8
III.—Contingencies—			
a. Stationery	8	8	0
b. Carriage of tents and records	...		
c. Rents, rates and taxes	...		
d. Pay of police guards	...		
e. Official postage	0	0	0
f. Sundries	408	14	8
Total B.—Establishments	14,793	10	6
Grand Total of Expenditure	1,79,908	6	2

Calcutta,
The 4th June 1892.

J. BRIDGNELL,
Chief Superintendent, Forest Account Branch.

Form No. 59.

Account Current for the year 1891-92.

Dr.

	R a. p.	R a. p.
To Cash Balance	...	23 14 2
„ VIII.—Assessed Taxes—		
Income Tax—Deductions from salaries	...	254 12 3
„ Revenue as per Annual Summary, Form No. 58	...	2,72,338 5 0
„ Service Funds—		
Civil Fund—Ordinary, Bengal	...	...
„ Additional, Bengal	...	...
Military Fund—Bengal	...	...
„ „ Madras	...	...
„ Orphan Fund—Bengal	...	...
Uncovenanted Service Family Pension Fund—Bengal	317 4 0	...
General Family Pension Fund	...	...
Hindu Family Annuity Fund		317 4 0
„ Deposits	...	...
„ Forest Cash Remittances—Local—		
Forest cheques drawn	1,22,880 9 9	..
Inter-Divisional Transfers		1,22,880 9 9
„ Advances recoverable	...	22,277 2 11
„ Suspense	...	...
„ Account Current (other Governments)—		
Remittances from Government of Madras	1,500 0 0	...
„ „ „ „ Burma	10 0 0	..
		1,510 0 0
„ Inter-Departmental Transfers—		
Public Works Department, ordinary	11,242 4 4	...
Military Department, Bengal	751 12 6	...
„ „ Madras	0 5 6	...
Civil Department—		
Jail	...	...
Mathematical Instrument Department	.	..
Miscellaneous	42,331 13 6	...
		54,326 3 10
TOTAL	...	4,73,928 3 11

Cr.

	R a. p.	R a. p.
By Expenditure as per Annual Summary, Form No. 58	...	1,79,908 6 2
„ Deposits	...	...
„ Forest Cash Remittances—Local—		
Remittances to Treasuries	2,02,387 0 11	...
Inter-Divisional Transfers		2,02,387 0 11
„ Advances Recoverable	...	21,406 8 9
„ Suspense	...	...
„ Account Current (other Governments)—		
Remittances to the Government of Madras	7,979 12 7	...
„ „ „ „ Burma	18,708 15 6	...
		26,688 12 1
„ Inter-Departmental Transfers—		
Public Works Department, ordinary	1 4 4	...
Military Department, Bombay	3,366 0 0	...
Civil Department	...	...
Miscellaneous	40,170 3 8	...
		43,537 8 0
„ Cash Balance	...	...
TOTAL	...	4,73,928 3 11

CALCUTTA,
The 4th June 1892.

J. BRIDGNELL,
Chief Superintendent, Forest Account Branch.

Form No. 60.

Revenue received and Outstandings on account of Revenue during 1891-92.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
		R a. p.	R a. p.	R a. p.	R a. p.		
Andamans.	By Messrs. Ogilvy, Gillanders & Co., London—						
	Padouk squares . .	...	1,78,308 15 9	1,78,308 15 9	1,78,308 15 9	...	
	„ planks . .						
	Broken stowage . .						
	By Messrs. Gillanders, Arbuthnot & Co., Calcutta—						
	Padouk squares . .	...	2,273 8 6	4,549 8 3	4,549 8 3	...	
	„ planks . .	...	1,463 10 0				
	Gurjan „ . . .	...	812 5 9				
	By Messrs. Wilson & Co., Madras—						
	Padouk squares . . .	...	95 0 7	7,979 12 7	7,979 12 7	...	
	„ logs . . .	...	1,081 7 2				
	Pyimma squares . .	...	2,687 12 4				
	„ logs . . .	...	1,016 12 6				
	Mowa „ . . .	...	412 8 1				
	„ sleepers . .	...	10 6 0				
	Gangow logs . . .	...	303 5 11				
	Thingan (white) logs . .	...	206 3 4				
	Gurjan planks . . .	...	2,166 4 8				
	Executive Commissariat Officer, Port Blair—						
	Sawn timber from Chatham .	...	101 0 5	101 0 5	101 0 5	...	

Form No. 60.

Revenue received and Outstandings on account of Revenue during 1891-92—continued.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
		R a. p.	R a. p.	R a. p.	R a. p.		
Andamans.	Southern District Officer, Port Blair—						
	Timber in the log	...	10,967 4 7	24,949 3 8	24,949 3 8	...	
	Sawn timber from Chatham	...	11,365 3 5				
	" " " Dhani Khari	...	1,206 5 7				
	" " " Haddo	...	1,410 6 1				
	Northern District Officer, Port Blair—						
	Timber in the log	...	8,819 6 1	10,333 2 8	10,333 2 8	...	
	Sawn timber from Chatham	...	1,513 12 7				
	Port Officer, Port Blair—						
	Timber in the log	42 0 0	1,312 2 3	4,562 13 10	4,562 13 10	...	
	Sawn timber from Chatham	399 13 9	2,808 13 10				
	Government Tea Garden, Port Blair—						
	Sawn timber from Dhani Kari Saw Mill	...	223 4 3	223 4 3	223 4 3	...	
	Deputy Director, Indian Marine—						
	Timber in the log	...	1,450 10 0	1,450 10 0	...	1,450 10 0	
	Burma State Railway—						
	Timber in the log	...	18,466 2 10	18,466 2 10	17,982 9 3	483 9 7	

Gun-Carriage Factory, Madras— Timber in the log	...	3,366 0 0	3,366 0 0	3,366 0 0	...
Superintendent, Municipal Workshops, Calcutta— Sawn squares from Chatham	...	250 13 6	250 13 6	250 13 6	...
Local Merchants and private purchasers—					
Sawn timber from Chatham, padouk	...	642 1 10			
Sawn timber from Chatham, II class	..	1 1 2			
Sawn timber from Chatham, III class	...	61 6 10			
Sawn timber from Dhani Khari, III class	...	0 15 9			
Sawn timber from Chatham, V class	...	4 15 6	16,259 12 3	16,250 10 3	9 2 0
Sawn timber from Dhani Khari, V class	...	16 6 6			
Sawn timber from Chatham, IV class	...	13,110 4 7			
Sawn timber from Dhani Khari, IV class	...	2,004 6 0			
Sawn timber from Haddo, IV class (rejected)	...	18 2 1			
Sawn timber from Hobdaypur, padouk	400 0 0	...			

Form No. 60.

Revenue received and Outstandings on account of Revenue during 1891-92,—concluded.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
		R a. p.	R a. p.	R a. p.	R a. p.		
	Public for Bamboos sold I.-c.	...	8 10 9	8 10 9	8 10 9	...	
	" " Canes " I.-c.	...	1 10 0	42 11 0	42 11 0	...	
	" " Tusks " I.-c.	...	41 1 0				
	Total Revenue I.	841 13 9	2,70,010 12 0	2,70,852 9 9	2,68,909 4 2	1,943 5 7	
	Timber removed by purchasers	...	2,056 15 10	2,056 15 10	2,056 15 10	...	
	Firewood and charcoal	...	34 0 0	34 0 0	34 0 0	...	
	Bamboos	...	53 0 0	53 0 0	53 0 0	...	
	Fodder grass	...	1 0 0	1 0 0	1 0 0	...	
	Other minor produce	...	1,231 4 0	1,231 4 0	1,231 4 0	...	
	V.-c. Other sources	...	52 13 0	52 13 0	52 13 0	...	
	GRAND TOTAL REVENUE	841 13 9	2,73,439 12 10	2,74,281 10 7	2,72,338 5 0	1,943 5 7	

Form No. 61.

Outstandings and Liabilities on account of Contractors and Disbursers for 1891-92.

Division.	Department Debtor.			Department Creditor.			Balance Due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings.)	By Department (Liabilities.)	
	R a. p.	R a. p.	R a. p	R a. p.	R a. p.	R a. p.	R a. p.	R a. p.	
Andamans . . .	...	22,277 2 11	22,277 2 11	3,568 7 3	21,406 8 9	24,975 0 0	2,697 13 1	...	
Total .	...	22,277 2 11	22,277 2 11	3,568 7 3	21,406 8 9	24,975 0 0	2,697 13 1	...	

Calcutta;
The 3rd May 1892.

I. C. BOSE,
Assistant Comptroller General, Forests.

Form No. 62.

Financial Results of the year 1891-92.

Division.	Timber and other produce removed from the forests by Government Agency.		Other Revenue.		Formation, protection and improvement of forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	R	R	R	R	R	R	R	
Andamans . . .	2,68,909	1,63,521	3,429	240	16,147	2,72,338	1,79,908	
Total .	2,68,909	1,63,521	3,429	240	16,147	2,72,338	1,79,908	

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